A2000-24 9/90

Annual Statistical Report

AMERICAN
IRON AND STEEL
INSTITUTE
1989

AMERICAN IRON AND STEEL INSTITUTE
1133 15TH STREET, N.W., WASHINGTON, D.C. 20005

COPYRIGHT 1990 BY
AMERICAN IRON AND STEEL INSTITUTE

CONTENTS

	Table	Page
Notes		4
Selected Highlights		
Statistical highlights	1A, 1B	6
Financial highlights	1C, 1D	7
Financial and Economic Statistics		
Income statement	2	10
Balance sheet	3	11
Cash flow statement	4	12
Employment and Wage Data		
Employment cost per hour worked	5	14
Employees, hours worked, and employment cost	6	15
Output per man-hour	7	16
Occupational injury/illness	8	17
Shipments—Steel Mill Products		
By products—1989	9	20, 21
By grades—1989	10	22, 23
By products (10 year trend)	11	24–27
By month (10 year trend)	11	25, 27
By markets (10 year trend)	12	28, 29
By products by markets	13	30–32
Exports and Imports		
Exports—Products (5 year trend)	14	34, 35
—Product groups (10 year trend)	15	37
—By month (10 year trend)	16	37
—Countries of destination	17, 17A	38–43
Imports—Products (5 year trend)	18	44, 45
—Product groups (10 year trend)	19	46
—By month (10 year trend)	20	46
—Countries of origin	21, 22, 22A	47–53
—Customs districts	23, 23A	54–61
Raw Steel Production		
Production—By type of furnace	24	64, 65
—By grades	24	64, 65
—By cast	24	65
—State distribution	25	66
—Monthly and quarterly	26	67
—Capability utilization	26	67
Basic Materials		
Pig Iron		
—Production	27	70
—Consumption	27	70
—Sales	27	70
Iron ore imports	28	71
Manganese ore imports	29	71
Coal—Consumption	30	72
Fluxes—Consumption in steelmaking	31	72
Coke—Production, receipts, consumption and shipments	32	73
Ore & agglomerated products—Consumption	33	74
Scrap—Consumption by grade	34	75
—Consumption by type of furnace	35	76
Consumption—Electric Power—Oxygen	36, 37	77
—Fuels	38	78, 79
Canadian Statistics	39–51	82–92
World Statistics		
Production—Pig Iron	52	94, 95
—Raw steel	53	96, 97

NOTES

D—Disclosure
P—Preliminary
R—Revised
n.a.—Not available
Net ton—2,000 pounds
Gross ton—2,240 pounds
( ) Indicates loss or negative number.
Rounded figures do not necessarily add to totals.

Raw steel is defined as steel in the first solid state after melting suitable for further processing or sale, including ingots, steel for foundry castings and strand or pressure cast blooms, billets, slabs, or other product forms.

Raw steel production capability is defined as the tonnage capability to produce raw steel for a sustained full order book.

SELECTED HIGHLIGHTS
THE IRON AND STEEL INDSUTRY AT A GLANCE

The Selected Statistical Highlights present a ten-year trend from which comparisons of year-to-year changes may be made for those items of the industry that are indicative of the operating level and the financial status of reporting companies. In the use of the highlights, it should be recognized that there may be a difference in the universe of reporting companies for the major items in the statistical section. This is especially significant for the financial series as compared to other series; for example, the universe for financial data for 1988 and 1989 represents companies who in 1989 produced 71.7% of the reported raw steel production.

SELECTED STATISTICAL HIGHLIGHTS

Table 1A

Shipments, Apparent Supply, Imports and Employment

(Thousands)

	Steel Mill Products–Net Tons				Imports as % of U.S. Apparent Steel Supply					Steel Employment (a)
Year	Total Net Shipments	Less Exports	Plus Imports	U.S. Apparent Steel Supply	Total	Japan	EEC	Canada	Other	Average No. of Employees
1989	84,100	4,578	17,321	96,843	17.9	3.8	5.8	3.1	5.2	169
1988	83,840	2,069	20,891	102,662	20.3	4.2	6.1	3.1	6.9	169
1987	76,654	1,129	20,414	95,940	21.3	4.5	6.0	3.8	7.0	163
1986	70,263	929	20,692	90,026	23.0	4.9	7.3	3.6	7.2	175
1985	73,043	932	24,256	96,367	25.2	6.2	7.2	3.0	8.8	208
1984	73,739	980	26,163	98,922	26.4	6.7	6.4	3.2	10.1	236
1983	67,584	1,199	17,070	83,455	20.5	5.1	4.9	2.9	7.6	243
1982	61,567	1,842	16,663	76,388	21.8	6.8	7.3	2.4	5.3	289
1981	88,450	2,904	19,898	105,444	18.9	5.9	6.1	2.7	4.2	391
1980	83,853	4,101	15,495	95,247	16.3	6.3	4.1	2.5	3.4	399
Details on Page:	24	34	44	...	47	47	47	47	47	15

(a) Covering only those employees engaged in the production and sale of iron and steel products and excludes mining and quarrying operations, transportation, warehousing, fabrication and other non-steel producing activities.

Table 1B

Raw Steel Data

(Thousands of net tons)

		United States				Percent of U.S. Production				
						By Type of Furnace			By Type Cast	
Year	World Production	Production	% of World	Capability	% of Capability	OH	BOP	Elec.	Ingots	Continuous
1989	862,620	97,943	11.4	115,900	84.5	4.5	59.6	35.9	35.1	64.8
1988	859,188	99,924	11.6	112,000	89.2	5.1	58.0	36.9	38.6	61.3
1987	811,079	89,151	11.0	112,200	79.5	3.0	58.9	38.1	40.1	59.8
1986	788,948	81,606	10.3	127,000	63.8	4.1	58.7	37.2	44.7	55.2
1985	792,945	88,259	11.1	133,600	66.1	7.3	58.8	33.9	55.5	44.4
1984	782,590	92,528	11.8	135,300	68.4	9.0	57.1	33.9	60.3	39.6
1983	730,930	84,615	11.6	150,600	56.2	7.0	61.5	31.5	67.8	32.1
1982	710,738	74,577	10.5	154,000	48.4	8.2	60.7	31.1	70.9	29.0
1981	779,399	120,828	15.5	154,300	78.3	11.1	60.6	28.3	78.2	21.6
1980	790,419	111,835	14.2	153,700	72.8	11.7	60.4	27.9	79.5	20.3
Details on Page:	96	64	96	...	67	64	64	64	65	65

SELECTED FINANCIAL HIGHLIGHTS

Table 1C

Income Data

(Millions of Dollars)

Year	Steel Segment Results		
		Net Income	
	Net Sales	Amount	% of Net Sales
1989	$31,969	$1,478	4.6
1988r	32,466	(567)	-1.7
1987	26,933	1,077	4.0
1986	24,875	(4,150)	-16.7
1985	28,272	(1,834)	-6.5
1984	30,005	(31)	-0.1
1983	24,463	(2,231)	-9.1
1982	28,239	(3,384)	-12.0
1981	43,109	1,653	3.8
1980	37,163	681	1.8
Details on Page:	10	10	10

Table 1D

Cash Flow Data

(Millions of Dollars)

Year	Steel Segment Results			
		Net Cash Provided (Used) from		Inc.(Dec.) In Cash & Mkt.Secs.
	Capital Expend.	Operations	Financing	
1989	$2,310	$918	($652)	$265
1988r	1,839	726	(397)	328
1987	1,164	725	(541)	184
1986	862	1,439	(1,239)	200
1985	1,641	(427)	353	(74)
1984	1,203	(428)	296	(132)
1983	1,850	(1,858)	1,556	(302)
1982	2,258	(1,990)	1,766	(224)
1981	2,371	689	(692)	(3)
1980	2,651	(748)	602	(146)
Details on Page:	12	12	12	12

FINANCIAL STATISTICS

Financial data for 1988 and 1989 includes companies which made up 71.7% of the reported total raw steel production of the entire industry in 1989. Other years are based on results of companies representing varying percentages of the entire industry.

The financial tables included are for the Steel Segments of the businesses only. These statements representing the steel industry are statistical only, since the allocation of some items on the balance sheet, such as long term debt, deferred taxes and equity between steel and non-steel operations, requires each participating company to exercise judgement based on its individual facts and circumstances.

Table 2

Income Statement
Steel Segment
(Millions of Dollars)

	1989	1988r	1987	1986	1985	1984	1983	1982	1981	1980
REVENUES:										
Sales (Net Billing Value of Products Shipped and Other Services)	$31,968.6	$32,465.7	$26,932.7	$24,875.2	$28,272.3	$30,005.2	$24,462.8	$28,238.6	$43,109.3	$37,162.7
Interest, Dividends & Other Income	291.8	205.2	154.2	160.8	162.2	328.1	514.8	492.0	653.8	583.7
Total Revenue	32,260.5	32,670.9	27,086.9	25,036.0	28,434.4	30,333.3	24,977.6	28,730.6	43,763.1	37,746.4
COSTS:										
Employment Costs	8,970.1	8,847.4	7,762.4	7,543.7	8,822.3	9,334.5	8,650.8	12,199.4	15,165.2	13,826.2
Materials, Supplies, Freight and Other Services	19,093.5	18,958.4	16,083.3	15,364.1	18,034.2	18,779.7	15,664.6	17,181.9	24,201.9	21,181.0
Depreciation, Depletion & Amortization	1,329.7	1,311.2	1,294.1	1,301.1	1,343.8	1,374.7	1,290.5	1,471.6	1,617.5	1,528.1
Interest & Other Financial Costs	492.2	462.4	538.5	637.0	713.4	774.3	616.5	600.0	487.4	499.3
Taxes Other than Income	376.2	372.0	375.9	378.7	362.7	359.9	371.2	NA	NA	NA
Loss or (Gain) on Sales of Assets	1.6	(46.5)	(1.4)	(45.6)	0.3	(309.9)	(20.0)	2,021.4	(132.0)	34.7
Loss or (Gain) Atrtributable to Shutdown or Restructuring of Facilities	32.1	81.6	170.8	631.5	966.9	112.8	1,508.1	---	---	---
Unusual Items	187.2	1,390.2	(197.3)	3,813.5	77.2	77.8	24.5	(24.8)	(28.5)	---
Taxes on Income	317.9	312.4	(87.9)	(448.3)	(35.4)	21.0	(720.4)	(1,335.1)	798.2	(3.9)
Total Costs	30,800.5	31,689.1	25,938.5	29,175.8	30,285.4	30,524.8	27,385.8	32,114.4	42,109.7	37,065.4
Extraordinary and Other Items Net of Taxes	18.4	(1,549.2)	(71.4)	(10.1)	16.9	161.0	177.1	NA	NA	NA
NET INCOME	$ 1,478.4	($567.4)	$ 1,077.0	($4,149.9)	($1,834.0)	($30.5)	($2,231.1)	($3,383.8)	$ 1,653.4	$ 681.0
Percent Return on Sales	4.6	(1.7)	4.0	(16.7)	(6.5)	(0.1)	(9.1)	(12.0)	3.8	1.8

Totals do not necessarily add due to rounding

MEMO: In 1989 reporting companies represent 70.2 million net tons of raw steel production and 57.4 million net tons of shipments of finished steel products.

Table 3
Balance Sheet
Steel Segment
(Millions of Dollars)

ASSETS	1989	1988r	1987	1986	1985	1984	1983	1982	1981	1980
Current Assets:										
Cash & Marketable Securities	$ 1,213.8	$ 948.4	$ 614.7	$ 423.1	$ 237.5	$ 402.1	$ 606.9	$ 952.5	$ 1,157.7	$ 1,151.9
Receivables, Less Allowances	3,629.4	4,266.7	3,796.4	2,863.7	3,117.5	3,213.0	3,408.3	2,727.5	4,385.5	4,710.1
Inventories	4,101.0	3,843.4	3,351.5	3,045.8	3,546.2	4,216.5	3,320.7	4,034.4	5,379.4	4,693.6
Other Current Assets	106.7	112.0	179.1	129.7	116.8	198.8	204.7	226.5	193.7	263.3
Total Current Assets	9,050.9	9,170.4	7,941.6	6,462.3	7,018.0	8,030.4	7,540.6	7,940.9	11,116.3	10,818.9
Long-Term Receivables & Other Investments	613.1	741.8	838.9	755.8	903.1	1,047.5	1,700.0	N.A.	N.A.	N.A.
Fixed Assets:										
Property, Plant & Equipment	31,461.0	32,089.3	31,710.1	32,614.0	33,927.7	35,198.4	34,283.2	38,518.5	38,971.2	37,716.9
Less-Depreciation, Depletion & Amortization	17,380.9	18,621.8	18,620.0	19,185.7	18,236.3	18,589.0	18,401.8	20,681.5	20,768.4	19,976.2
Net Fixed Assets	14,080.1	13,467.5	13,090.1	13,428.3	15,691.4	16,609.4	15,881.4	17,837.0	18,202.8	17,740.7
Other Assets	869.2	806.9	327.2	309.9	337.6	499.6	349.3	2,101.3	2,376.7	2,210.6
Total Assets	$24,613.3	$24,186.6	$22,197.8	$20,956.3	$23,950.1	$26,186.9	$25,471.3	$27,879.2	$31,695.8	$30,770.2
LIABILITIES & STOCKHOLDERS' EQUITY										
Current Liabilities:										
Accounts Payable	$ 2,465.5	$ 2,426.8	$ 2,339.0	$ 1,658.1	$ 2,158.1	$ 2,261.4	$ 2,287.6	$ N.A.	$ N.A.	$ N.A.
Accrued taxes incl. Federal Income Taxes	519.6	525.9	566.2	403.6	508.6	485.1	385.5	N.A.	N.A.	N.A.
Long-Term Debt Maturing Within One Year	186.7	279.9	296.3	300.1	294.4	571.4	255.9	197.8	266.5	128.1
All Other Current Liabilities	2,211.3	2,210.0	2,028.8	1,674.8	2,564.7	2,392.0	2,726.8	5,136.4	6,418.7	6,442.7
Total Current Liabilities	5,383.2	5,442.7	5,230.4	4,036.6	5,525.8	5,709.9	5,655.8	5,334.2	6,685.2	6,570.8
Long-Term Debt Less Amount Maturing Within One Year	4,956.0	5,148.4	5,388.4	5,409.4	6,874.6	6,380.0	7,208.2	7,817.9	6,163.7	6,822.5
Deferred Income Tax	296.2	268.7	205.9	177.4	188.2	277.1	264.2	750.2	1,696.4	1,128.6
Liabilities Attributable to Shutdown or Restructuring of Facilities	946.6	845.1	1,282.2	1,488.9	2,089.3	2,019.7	2,085.7	N.A.	N.A.	N.A.
All Other Long-Term Liabilities & Reserves	10,436.0	10,160.2	6,981.3	7,185.9	2,087.2	2,138.2	1,809.8	2,697.3	1,759.0	1,759.5
Minority Interest in Companies not Wholly Owned.	22.0	19.9	18.3	14.8	17.4	22.8	18.2	19.5	30.9	31.1
Total Liabilities	22,040.0	21,885.0	19,106.4	18,313.0	16,782.5	16,547.7	17,041.9	16,619.1	16,335.2	16,312.5
Redeemable Preferred Stock (RPS)	77.7	64.8	127.6	226.6	226.5	228.2	228.3	---	---	---
Stockholders' Equity	2,495.7	2,236.9	2,963.8	2,416.7	6,941.1	9,411.0	8,201.1	11,260.1	15,360.6	14,457.7
Total Liabilities, RPS & Stockholders' Equity	$24,613.3	$24,186.6	$22,197.8	$20,956.3	$23,950.1	$26,186.9	$25,471.3	$27,879.2	$31,695.8	$30,770.2
Memo: LIFO Inventory Reserves Included Above	$ 1,944.3	$ 2,029.9	$ 1,866.1	$ 2,195.2	$ 3,026.8	$ 3,497.6	$ 2,750.6	$ 5,101.7	$ 6,067.1	$ 5,800.8

Table 4
Cash Flow Statement
Steel Segment
(Millions of Dollars)

	1989	1988r	1987	1986	1985	1984	1983	1982	1981	1980
Cash Provided From Operations:										
Net Income	$ 1,478.4	($567.4)	$ 1,077.0	($4,131.9)	($1,803.0)	($92.7)	($2,235.0)	($3,384.4)	$ 1,653.8	$ 681.4
Depreciation	1,330.1	1,310.6	1,295.3	1,301.1	1,343.7	1,373.0	1,292.1	1,481.2	1,636.1	1,547.2
Deferred Income Taxes	29.3	39.1	25.5	(485.5)	(55.4)	42.8	(722.9)	(854.4)	762.9	255.8
Other Non Cash P&L Items	250.2	2,978.2	24.6	4,622.6	1,017.0	156.2	1,366.2	2,036.6	(39.8)	8.2
Total from Earnings	3,088.0	3,760.5	2,373.3	1,306.3	502.2	1,479.3	(299.6)	(721.0)	4,013.0	2,492.6
Changes in Working Capital	539.1	(326.5)	(359.0)	965.8	527.1	(829.0)	(94.1)	1,677.3	(463.6)	50.0
Cash Provided from Operations	3,627.0	3,434.0	2,014.2	2,272.0	1,029.4	650.3	(393.7)	956.3	3,549.4	2,542.6
Cash Provided (Used) for Non Operating Units	(16.1)	(7.3)	8.4	(40.6)	(115.3)	(145.6)	(160.6)	63.3	(161.2)	(83.6)
Cash (Used) for Dividends	(260.6)	(218.5)	(189.9)	(120.5)	(138.7)	(201.5)	(203.3)	(413.8)	(774.9)	(714.6)
Long-Term Investments:										
Additions to Plant & Equipment	(2,310.2)	(1,838.5)	(1,163.9)	(862.0)	(1,640.9)	(1,203.1)	(1,850.2)	(2,258.2)	(2,370.6)	(2,650.6)
Disposals of Plant & Equipment	267.1	184.0	81.7	505.5	293.1	210.7	48.5	602.8	166.2	227.1
Other Provided (Used)	(389.7)	(828.2)	(25.9)	(315.2)	145.6	260.9	701.0	(940.6)	279.6	(69.1)
Cash (Used) from Operations	(2,432.8)	(2,482.6)	(1,108.0)	(671.7)	(1,202.3)	(731.5)	(1,100.7)	(2,596.0)	(1,924.8)	(2,492.6)
Net Cash Provided (Used) from Operations	917.5	725.6	724.7	1,439.2	(426.9)	(428.3)	(1,858.3)	(1,990.2)	688.5	(748.2)
Cash Provided From (Used for) Financing										
Net Additions/Reductions In:										
Transfers (to) from Corporate	(107.7)	(252.6)	(322.7)	(865.9)	(299.8)	(435.4)	46.5	(242.6)	(186.4)	(87.5)
Long Term Debt	(497.4)	(390.8)	(351.8)	(88.5)	504.4	62.4	524.1	1,814.7	(638.4)	805.8
Short Term Debt	(36.8)	73.8	(36.9)	(384.6)	(15.0)	524.7	51.3	106.7	121.3	(179.5)
Stock	(10.2)	172.4	170.3	99.9	162.9	144.4	934.1	87.2	11.5	63.3
Net Cash Provided from (used for) Financing	(652.1)	(397.2)	(541.2)	(1,239.1)	352.5	296.1	1,556.0	1,766.0	(692.0)	602.1
Increase (Decrease) in Cash & Marketable Securities	$ 265.4	$ 328.4	$ 183.6	$ 200.1	($74.4)	($132.2)	($302.3)	($224.2)	($3.5)	($146.1)

EMPLOYMENT AND WAGE DATA

The data on number of employees, hours worked, employment cost, payroll cost per hour and employment cost per hour as shown on tables 5 and 6 cover those employees engaged in the operation of coke ovens, blast furnaces, steel-making furnaces and finishing mills, etc. and the sale of products thereof as reported by companies comprising about 79% of 1989 total raw steel production.

Indexes on output per man-hour in the iron and steel industry are those compiled by the United States Department of Labor, Bureau of Labor Statistics.

Table 5

Total Employment Cost per Hour Worked–Wage Employees

(Covering those employees engaged in the production and sale of iron and steel products)

Year	Pay for Hours Worked						Memo	Other Payroll Costs						Year
	Straight Time					Subtotal								
	Regular	Shift Differential	Sunday Premium	Overtime Premium	Premium For Work On Holidays	Pay for Hours Worked	Average Hourly Earnings In Steel (BLS)	Pay for Holidays Not Worked	Vacation Pay	All Other**	Total Payroll Cost Per Hour	Employee* Benefits Cost Per Hour	Total Employment Cost Per Hour	
1989	$13.369	$0.156	$0.319	$0.910	$0.247	$15.001	$15.00	$0.251	$1.142	$1.296	$17.690	$6.929	$24.620	1989
1988	13.076	0.151	0.320	0.915	0.237	14.699	14.72	0.231	1.042	1.851	17.823	6.825	24.647	1988
1987	13.034	0.151	0.302	0.800	0.242	14.529	14.54	0.255	1.038	0.399	16.221	7.486	23.707	1987
1986	13.224	0.157	0.294	0.671	0.284	14.630	14.53	0.301	1.109	0.179	16.219	7.023	23.242	1986
1985	13.023	0.157	0.244	0.574	0.274	14.272	13.98	0.339	1.269	0.117	15.997	6.815	22.812	1985
1984	12.570	0.158	0.234	0.514	0.255	13.731	13.53	0.312	1.135	0.165	15.343	5.955	21.298	1984
1983	12.548	0.156	0.255	0.409	0.259	13.627	13.40	0.366	0.968	0.133	15.094	7.119	22.213	1983
1982	13.012	0.157	0.375	0.276	0.235	14.055	13.96	0.499	2.165	0.089	16.808	6.973	23.781	1982
1981	12.092	0.171	0.434	0.432	0.298	13.427	13.11	0.350	1.601	0.071	15.449	4.709	20.158	1981
1980	10.970	0.135	0.377	0.336	0.295	12.114	11.84	0.333	1.574	0.156	14.177	4.274	18.451	1980

*Includes cost for retired employees as well as active.

**Includes profit sharing, gain sharing, stock plans, etc.

Table 6

Number of Employees, Hours Worked and Employment Cost

(Covering those employees engaged in the production and sale of iron and steel products)

	Employees Receiving Wages					Employees Receiving Salaries			All Employees Receiving Wages and Salaries					
Year	Average Number of Em-ployees	Total Hours Worked (000)	Avg Hrs. Worked Per Week Per Em-ployee	Em-ployment Cost (millions)	Total Em-ployment Cost Per Hour	Average Number of Em-ployees	Total Hours Worked (000)	Em-ployment Cost (millions)	Average Number of Em-ployees	Total Hours Worked (000)	Avg Hrs. Worked Per Week Per Em-loyee	Em-ployment Cost (millions)	Total Employment Cost Per Hour	Year
1989	124,218	265,820	41.0	$6,544.4	~~$25.416~~ 24.620	44,635	94,599	$2,592.5	168,853	360,420	40.9	$9,136.9	$25.351	1989
1988	125,289	271,053	41.4	6,680.7	24.647	43,608	92,344	2,514.5	168,898	363,397	41.2	9,162.2	25.304	1988
1987	120,865	261,631	41.5	6,202.5	23.707	42,473	92,509	2,378.0	163,338	354,140	41.6	8,580.4	24.229	1987
1986	128,418	259,173	38.7	6,023.8	23.242	46,365	96,719	2,362.9	174,783	355,892	39.1	8,386.7	23.565	1986
1985	150,906	300,456	38.2	6,854.1	22.812	57,262	118,292	2,887.0	208,168	418,747	38.6	9,741.1	23.262	1985
1984	170,694	339,228	38.0	7,224.9	21.298	65,308	134,838	3,119.5	236,002	474,067	38.4	10,344.4	21.821	1984
1983	168,852	324,997	36.9	7,219.1	22.213	73,893	149,814	3,459.4	242,745	474,811	37.5	10,678.5	22.490	1983
1982	198,477	345,093	33.3	8,206.6	23.781	90,960	180,535	4,197.9	289,437	525,628	34.8	12,404.5	23.599	1982
1981	286,219	543,324	36.4	10,952.4	20.158	104,695	209,373	4,626.7	390,914	752,697	36.9	15,579.1	20.698	1981
1980	291,483	544,220	35.7	10,041.6	18.451	107,346	213,575	4,196.1	398,829	757,795	36.3	14,237.7	18.788	1980

Memo:Net shipments (thousand net tons) for companies reporting employment data are as follows:

Year	(000 NT)	Year	(000 NT)
1989	63,192	1984	62,158
1988	63,807	1983	57,139
1987	59,071	1982	51,825
1986	54,352	1981	78,190
1985	60,482	1980	76,095

Table 7

BLS Index of Output per Man-hour in the Steel Industry

(All Employees)

Year	1977=100
1989p	165.8
1988r	168.3
1987r	152.3
1986	141.8
1985	139.5
1984	131.3
1983	116.8
1982	90.9
1981	112.0
1980	102.9
1979	106.9
Average Annual Increase* 1979-1989	5.8%

*Based on least squares method.

Source: United States Department of Labor, Bureau of Labor Statistics

NOTE: Although the output per man-hour data relate output to one input-labor time-they do not measure the specific contribution of labor, of capital, or of any other factor to production. In short, they do not reflect solely changes in the productiveness of labor. Rather, they reflect the joint effect of a number of interrelated influences such as changes in technology, capital investment per worker, utilization of capacity, layout and flow of material, skill of the work force, managerial skill, and labor-management relations.

Table 8

Occupational Injury/Illness

(Covering only those employees who were engaged in the production of iron and steel products as reported by companies comprising 74% of total 1989 raw steel production)

	1989	1988	1987	1986	1985
1. Aggregate number of man-hours (millions)	337	346	330	330	402
2. OSHA recordable injuries/illnesses:					
a. Fatalities	15	17	16	22	16
b. Lost workday cases	8,000	8,249	7,175	4,293	4,448
c. Other medical treatment cases	14,683	16,646	15,950	9,240	10,037
d. Total (2a through 2c)	22,698	24,912	23,141	13,555	14,501
3. Frequency rate (number of injuries/illnesses per 200,000 man-hours worked)	13.489	14.410	14.029	8.217	7.211
4. OSHA workdays lost (thousands)	224	224	200	147	135
5. Severity rate (days lost per 200,000 man-hours worked)	133	130	121	89	67

NOTE: Recordable injuries are reported as specified by the Bureau of Labor Statistics, U.S. Department of Labor pursuant to Section 24(a) of the Occupational Safety and Health Act of 1970.

The U.S. Department of Labor, Bureau of Labor Statistics issued revised record keeping guidelines for Occupational Injury and Illness effective April 1986.

Beginning with 1987 reporting companies have issued their figures to reflect the new guidelines; therefore, results may not be comparable to past years.

SHIPMENTS—STEEL PRODUCTS

Data in this section are expressed in terms of Gross Shipments and Net Shipments. Gross shipments represent the aggregate tonnage shipped by reporting companies including steel consumed by the companies in their own construction, maintenance, repair and operations, as well as in their own manufacture of fabricated products. Net shipments eliminate tonnage duplication by deducting from the gross total those shipments from one reporting company to another reporting company for conversion, further processing or resale.

Table 9

Shipments of Steel Mill Products–1989
All Grades–(Carbon, Alloy and Stainless)

(Net Tons)

Steel Mill Products	Total Gross Shipments	Less Shipments to Reporting Companies	Total Net Shipments	Percent of Total Net Shipments
Ingots and steel for castings	618,974	267,365	351,609	0.4
Blooms, slabs, billets	3,242,285	1,510,937	1,731,348	2.1
Wire rods	4,177,208	24,082	4,153,126	4.9
Total Semi–Finished	8,038,467	1,802,384	6,236,083	7.4
Structural shapes (3" & over)	4,987,427	...	4,987,427	5.9
Steel piling	368,152	...	368,152	0.4
Plates – Cut Lengths	5,115,859	28,446	5,087,413	6.0
Plates – In Coils	2,687,757	389,950	2,297,807	2.7
Total Shapes and Plates	13,159,195	418,396	12,740,799	15.1
Rails–Standard (over 60 lb)	457,615	...	457,615	0.5
–All other	9,444	...	9,444	0.0
Railroad accessories	94,756	...	94,756	0.1
Total Rails and Accessories	561,815	...	561,815	0.7
Bars–Hot rolled	6,825,841	524,968	6,300,873	7.5
–Bar–Size light shapes	1,316,231	...	1,316,231	1.6
–Reinforcing	5,015,371	...	5,015,371	6.0
–Cold finished	1,473,978	1,944	1,472,034	1.8
Total Bars	14,631,421	526,912	14,104,509	16.8
Tool Steel	69,723	2,523	67,200	0.1

Table 9 (continued)

Shipments of Steel Mill Products–1989
All Grades–(Carbon, Alloy and Stainless)

(Net Tons)

Steel Mill Products	Total Gross Shipments	Less Shipments to Reporting Companies	Total Net Shipments	Percent of Total Net Shipments
Pipe and tubing–Standard Pipe	1,184,227	9,587	1,174,640	1.4
–Oil country goods	909,364	751	908,613	1.1
–Line	871,427	146	871,281	1.0
–Mechanical	809,542	3,241	806,301	1.0
–Pressure	49,025	34	48,991	0.1
–Structural	120,707	88	120,619	0.1
–Pipe for piling	32,025	...	32,025	0.0
–Stainless	48,359	238	48,121	0.1
Total Pipe and Tubing	4,024,676	14,085	4,010,591	4.8
Wire–Drawn and/or Rolled	1,002,683	263	1,002,420	1.2
Black plate	312,297	1,785	310,512	0.4
Tin plate	2,788,000	...	2,788,000	3.3
Tin free steel	934,031	...	934,031	1.1
Tin coated sheets	82,988	...	82,988	0.1
Total Tin Mill Products	4,117,316	1,785	4,115,531	4.9
Sheets–Hot rolled	13,855,664	957,616	12,898,048	15.3
–Cold rolled	14,096,917	242,642	13,854,275	16.5
Sheets & Strip–Galvanized–Hot dipped	8,545,514	2,991	8,542,523	10.2
–Electrolytic	2,151,957	1,453	2,150,504	2.6
–All other metallic coated	1,376,951	14	1,376,937	1.6
–Electrical	485,774	1,525	484,249	0.6
Strip–Hot rolled	1,159,243	74,520	1,084,723	1.3
–Cold rolled	875,018	4,833	870,185	1.0
Total Sheets and Strip	42,547,038	1,285,594	41,261,444	49.1
Total Net Shipments	88,152,334	4,051,942	84,100,392	100.0

Table 10

Shipments of Steel Mill Products–1989
By Grades–(Carbon, Alloy and Stainless)

(Net Tons)

Steel Mill Products	Carbon	%	Alloy	%	Stainless	%	Total	%
Ingots and steel for castings	182,253	0.2	159,668	3.9	9,688	0.7	351,609	0.4
Blooms, slabs, billets	1,390,828	1.8	252,997	6.1	87,523	5.9	1,731,348	2.1
Wire rods	4,064,544	5.2	51,778	1.2	36,804	2.5	4,153,126	4.9
Total Semi-Finished	5,637,625	7.2	464,443	11.2	134,015	9.1	6,236,083	7.4
Structural shapes (3" & over)	4,975,765	6.3	11,662	0.3	–	–	4,987,427	5.9
Steel piling	368,152	0.5	–	0.0	–	–	368,152	0.4
Plates – Cut Lengths	4,534,581	5.8	448,258	10.8	104,574	7.1	5,087,413	6.0
Plates – In Coils	2,226,642	2.8	6,315	0.2	64,850	4.4	2,297,807	2.7
Total Shapes and Plates	12,105,140	15.4	466,235	11.3	169,424	11.5	12,740,799	15.1
Rails–Standard (over 60 lb)	457,615	0.6	–	–	–	–	457,615	0.5
–All other	9,444	0.0	–	–	–	–	9,444	0.0
Railroad accessories	94,756	0.1	–	–	–	–	94,756	0.1
Total Rails and Accessories	561,815	0.7	–	–	–	–	561,815	0.7
Bars–Hot rolled	4,682,330	6.0	1,582,842	38.2	35,701	2.4	6,300,873	7.5
–Bar–Size light shapes	1,316,231	1.7	–	–	–	–	1,316,231	1.6
–Reinforcing	5,015,371	6.4	–	–	–	–	5,015,371	6.0
–Cold finished	1,154,227	1.5	215,039	5.2	102,768	7.0	1,472,034	1.8
Total Bars	12,168,159	15.5	1,797,881	43.4	138,469	9.4	14,104,509	16.8
Tool Steel	–	–	67,200	1.6	–	–	67,200	0.1

Table 10 (continued)

Shipments of Steel Mill Products–1989
By Grades–(Carbon, Alloy and Stainless)

(Net Tons)

Steel Mill Products	Carbon	%	Alloy	%	Stainless	%	Total	%
Pipe and tubing–Standard Pipe	1,174,640	1.5	–	–	–	–	1,174,640	1.4
–Oil country goods	616,353	0.8	292,260	7.1	–	–	908,613	1.1
–Line	871,281	1.1	–	–	–	–	871,281	1.0
–Mechanical	513,946	0.7	292,355	7.1	–	–	806,301	1.0
–Pressure	32,336	0.0	16,655	0.4	–	–	48,991	0.1
–Structural	120,619	0.2	–	–	–	–	120,619	0.1
–Pipe for piling	32,025	0.0	–	–	–	–	32,025	0.0
–Stainless	–	–	–	–	48,121	3.3	48,121	0.1
Total Pipe and Tubing	3,361,200	4.3	601,270	14.5	48,121	3.3	4,010,591	4.8
Wire–Drawn and/or Rolled	955,202	1.2	22,518	0.5	24,700	1.7	1,002,420	1.2
Black plate	310,512	0.4	–	–	–	–	310,512	0.4
Tin plate	2,788,000	3.6	–	–	–	–	2,788,000	3.3
Tin free steel	934,031	1.2	–	–	–	–	934,031	1.1
Tin coated sheets	82,988	0.1	–	–	–	–	82,988	0.1
Total Tin Mill Products	4,115,531	5.2	–	–	–	–	4,115,531	4.9
Sheets–Hot rolled	12,778,651	16.3	83,490	2.0	35,907	2.4	12,898,048	15.3
–Cold rolled	13,127,253	16.7	14,245	0.3	712,777	48.4	13,854,275	16.5
Sheets & Strip–Galvanized–Hot dipped	8,542,523	10.9	–	–	–	–	8,542,523	10.2
–Electrolytic	2,150,504	2.7	–	–	–	–	2,150,504	2.6
–All other metallic coated	1,376,937	1.8	–	–	–	–	1,376,937	1.6
–Electrical	2,861	0.0	481,388	11.6	–	–	484,249	0.6
Strip–Hot rolled	982,661	1.3	97,036	2.3	5,026	0.3	1,084,723	1.3
–Cold rolled	619,282	0.8	47,052	1.1	203,851	13.8	870,185	1.0
Total Sheets and Strip	39,580,672	50.4	723,211	17.5	957,561	65.0	41,261,444	49.1
Total Net Shipments	78,485,344	100.0	4,142,758	100.0	1,472,290	100.0	84,100,392	100.0
Shipments to reporting companies	3,779,192	–	139,943	–	132,807	–	4,051,942	–
Total Gross Shipments	82,264,536	–	4,282,701	–	1,605,097	–	88,152,334	–

Table 11

Net Shipments of Steel Mill Products–All Grades

(Thousands of net tons)

Steel Products	1989		1988		1987		1986		1985	
	Tons	%	Tons	%	Tons	%	Tons	%	Tons	%
Ingots and steel for castings	352	0.4	385	0.5	381	0.5	244	0.3	256	0.4
Blooms, slabs, billets	1,731	2.1	1,542	1.8	1,212	1.6	1,242	1.8	1,118	1.5
Skelp	*	*	*	...	22	...	5	...	9	...
Wire Rods	4,153	4.9	4,048	4.8	3,840	5.0	3,464	4.9	2,962	4.0
Structural shapes (3" & over)	4,987	5.9	4,860	5.8	4,839	6.3	4,233	6.0	4,373	6.0
Steel piling	368	0.4	349	0.4	280	0.4	295	0.4	326	0.5
Plates Cut Lengths	5,087	6.0	5,044	6.0	4,048	5.3	3,565	5.1	4,327	5.9
Plates in Coils	2,297	2.7	2,284	2.7	**	...	**	...	**	...
Rails-Standard (over 60 lb)	458	0.5	460	0.5	351	0.5	444	0.6	679	0.9
-All other	9	0.0	37	0.0	15	...	17	...	25	...
Railroad accessories	95	0.1	118	0.1	62	0.1	101	0.1	121	0.2
Wheels (rolled and forged)	*	...	*	...	58	0.1	50	0.1	68	0.1
Axles	*	...	*	...	29	...	28	...	33	0.1
Bars-Hot rolled	6,301	7.5	6,460	7.7	6,048	7.9	5,648	8.0	5,698	7.8
-Bar-Size light shapes	1,316	1.6	1,373	1.6	1,190	1.6	911	1.3	1,329	1.8
-Reinforcing	5,015	6.0	5,091	6.1	4,918	6.4	4,299	6.1	4,326	5.9
-Cold finished	1,472	1.8	1,499	1.8	1,361	1.8	1,257	1.8	1,255	1.7
Tool Steel	67	0.1	64	0.1	58	0.1	56	0.1	60	0.1
Pipe and tubing-Standard Pipe	1,175	1.4	1,238	1.5	969	1.3	710	1.0	855	1.1
-Oil country goods	909	1.1	1,130	1.3	919	1.2	483	0.7	1,299	1.8
-Line	871	1.0	808	1.0	620	0.8	604	0.9	775	1.1
-Mechanical	806	1.0	901	1.1	767	1.0	748	1.1	812	1.1
-Pressure	49	0.0	59	0.1	72	0.1	72	0.1	87	0.1
-Structural	121	0.0	178	0.2	180	0.2	177	0.3	219	0.3
-Pipe for piling	32	0.0	74	0.1	***	...	***	...	***	...
-Stainless	48	0.1	55	0.1	42	0.1	42	0.1	49	0.1
Wire-Drawn	1,002	1.2	1,073	1.3	800	1.0	802	1.1	874	1.2
-Nails and staples	*	...	*	...	218	0.3	205	0.3	170	0.2
-Barbed and twisted	*	...	*	...	49	0.1	41	0.1	38	0.1
-Woven wire fence	*	...	*	...	13	...	11	...	20	...
-Bale ties and baling wire	*	...	*	...	25	...	21	...	34	0.1

*Effective 1/1/88 these products are not longer classified as "steel mill products." Consequently comparable shipment tonnage is now included in applicable semi-finished forms or drawn wire.

**Prior to 1988 included in sheets hot rolled.

***Prior to 1988 included in structural pipe & tubing

Table 11 (continued)

Net Shipments of Steel Mill Products–All Grades

(Thousands of net tons)

Steel Products	1989		1988		1987		1986		1985	
	Tons	%	Tons	%	Tons	%	Tons	%	Tons	%
Black plate	311	0.4	283	0.3	205	0.3	216	0.3	215	0.3
Tin plate	2,788	3.3	2,806	3.3	2,765	3.6	2,581	3.7	2,611	3.6
Tin free steel	934	1.1	899	1.1	939	1.2	935	1.3	889	1.2
Tin coated sheets	93	0.1	81	0.1	79	0.1	69	0.1	58	0.1
Sheets-Hot rolled	12,898	15.3	12,589	15.0	13,048	17.0	12,167	17.3	12,952	17.7
-Cold rolled	13,854	16.5	13,871	16.5	13,859	18.1	13,250	18.9	13,574	18.6
Sheets & Strip-Galvanized-Hot dipped	8,543	10.2	8,115	9.7	7,660	10.0	7,224	10.3	6,850	9.4
-Electrolytic	2,151	2.6	2,134	2.5	1,432	1.9	898	1.3	697	0.9
-All other metallic coated	1,377	1.6	1,262	1.5	1,228	1.6	1,177	1.7	1,122	1.5
-Electrical	484	0.6	524	0.6	465	0.6	416	0.6	413	0.6
Strip-Hot rolled	1,085	1.3	1,203	1.4	657	0.9	635	0.9	586	0.8
-Cold rolled	870	1.0	941	1.1	929	1.2	920	1.3	876	1.2
Total Steel Mill Products	84,100	100.0	83,840	100.0	76,652	100.0	70,263	100.0	73,043	100.0
Carbon	78,485	93.3	77,702	92.7	68,116	88.9	62,520	89	64,360	88.1
Stainless	1,472	1.8	1,586	1.9	1,418	1.8	1,187	1.7	1,251	1.7
Alloy (other than stainless)	4,143	4.9	4,552	5.4	7,120	9.3	6,556	9.3	7,432	10.2
Total Steel Mill Product Shipments by Months*										
January	7,278		6,608		5,665		6,437		6,017	
February	6,832		6,848		5,527		5,799		5,598	
March	7,824		7,693		6,234		6,142		6,344	
April	7,164		7,082		6,312		6,283		6,425	
May	7,446		7,187		6,247		6,212		6,519	
June	7,331		7,422		6,656		6,007		6,125	
July	6,387		6,325		6,295		5,815		5,710	
August	7,224		7,035		6,364		5,364		6,064	
September	6,779		6,922		6,726		5,608		5,848	
October	7,174		6,912		7,077		5,923		6,308	
November	6,652		6,712		6,606		4,899		5,654	
December	6,053		6,738		6,977		5,199		5,821	
Total*	84,100		83,840		76,654		70,263		73,043	

*Totals include adjustments not shown in monthly figures

Table 11 (continued)

Net Shipments of Steel Mill Products–All Grades

(Thousands of net tons)

Steel Products	1984		1983		1982		1981		1980	
	Tons	%	Tons	%	Tons	%	Tons	%	Tons	%
Ingots and steel for castings	275	0.4	238	0.4	246	0.4	461	0.5	445	0.6
Blooms, slabs, billets	1,031	1.4	760	1.1	1,035	1.7	2,185	2.5	2,185	2.6
Skelp	11	...	5	...	2	...	18	...	24	...
Wire Rods	3,090	4.2	2,857	4.2	2,411	3.9	3,040	3.4	2,688	3.2
Structural shapes (3" & over)	3,868	5.2	3,364	5.0	3,313	5.4	4,929	5.6	4,861	5.8
Steel piling	288	0.4	258	0.4	250	0.4	282	0.3	346	0.4
Plates	4,339	5.9	3,816	5.6	4,146	6.7	7,441	8.4	8,080	9.6
Rails–Standard (over 60 lb)	933	1.3	611	0.9	498	0.8	907	1.0	1,085	1.3
–All other	32	...	23	...	19	...	48	0.1	53	0.1
Railroad accessories	182	0.3	177	0.3	157	0.3	304	0.4	307	0.3
Wheels (rolled and forged)	59	0.1	52	0.1	72	0.1	110	0.1	159	0.2
Axles	33	...	21	...	36	0.1	100	0.1	193	0.2
Bars–Hot rolled	6,070	8.2	5,129	7.6	4,757	7.7	6,890	7.8	5,961	7.1
–Bar–Size light shapes	1,184	1.6	1,070	1.6	948	1.5	1,473	1.7	950	1.1
–Reinforcing	4,432	6.0	4,275	6.3	4,049	6.6	4,612	5.2	4,684	5.6
–Cold finished	1,484	2.0	1,179	1.7	1,015	1.7	1,631	1.8	1,585	1.9
Tool Steel	61	0.1	46	0.1	44	0.1	67	0.1	79	0.1
Pipe and tubing–Standard Pipe	743	1.0	812	1.2	962	1.5	1,858	2.1	1,773	2.1
–Oil country goods	1,406	1.9	678	1.0	1,759	2.9	4,241	4.8	3,612	4.3
–Line	775	1.0	623	0.9	1,093	1.8	2,047	2.3	1,793	2.1
–Mechanical	940	1.3	748	1.1	762	1.2	1,348	1.5	1,159	1.4
–Pressure	89	0.1	88	0.1	108	0.2	154	0.2	149	0.2
–Structural	270	0.4	238	0.4	301	0.5	598	0.7	569	0.7
–Stainless	52	0.1	57	0.1	41	0.1	39	...	41	0.1
Wire–Drawn	963	1.3	1,010	1.5	1,003	1.6	1,440	1.6	1,392	1.7
–Nails and staples	147	0.2	163	0.2	123	0.2	150	0.2	173	0.2
–Barbed and twisted	52	0.1	98	0.1	65	0.1	81	0.1	70	0.1
–Woven wire fence	26	...	49	0.1	74	0.1	95	0.1	92	0.1
–Bale ties and baling wire	35	0.1	39	0.1	43	0.1	49	0.1	41	...

Table 11 (continued)

Net Shipments of Steel Mill Products–All Grades

(Thousands of net tons)

Steel Products	1984		1983		1982		1981		1980	
	Tons	%	Tons	%	Tons	%	Tons	%	Tons	%
Black plate	286	0.4	352	0.5	319	0.5	421	0.5	504	0.6
Tin plate	2,765	3.7	2,925	4.4	3,018	4.9	3,490	3.9	4,166	5
Tin free steel	945	1.3	962	1.4	918	1.5	948	1.1	978	1.1
Tin coated sheets	66	0.1	69	0.1	66	0.1	68	0.1	61	0.1
Sheets–Hot rolled	13,133	17.8	11,619	17.2	9,052	14.7	13,451	15.2	12,116	14.5
-Cold rolled	13,664	18.5	13,781	20.4	11,132	18.1	14,396	16.3	13,313	15.9
Sheets & Strip–Galvanized–Hot dipped	6,100	8.3	5,793	8.6	4,878	7.9	5,375	6.1	4,787	5.7
-Electrolytic	659	0.9	641	0.9	491	0.8	548	0.6	457	0.5
-All other metallic coated	1,109	1.5	946	1.4	694	1.1	836	0.9	722	0.9
-Electrical	490	0.7	458	0.7	445	0.7	599	0.7	601	0.7
Strip–Hot rolled	650	0.9	633	0.9	498	0.8	660	0.7	669	0.8
-Cold rolled	1,002	1.3	920	1.4	724	1.2	1,060	1.2	930	1.1
Total Steel Mill Products	73,739	100.0	67,583	100.0	61,567	100.0	88,450	100.0	83,853	100.0
Carbon	65,009	88.2	60,292	89.2	53,947	87.6	76,554	86.6	76,358	87.5
Stainless and heat resisting	1,248	1.7	1,137	1.7	894	1.5	1,163	1.3	1,127	1.3
Alloy (other than stainless)	7,482	10.1	6,154	9.1	6,726	10.9	10,732	12.1	9,368	11.2
Total Steel Mill Product Shipments by Months*										
January	5,980		4,583		5,608		7,616		7,952	
February	6,150		4,588		5,434		7,375		7,690	
March	7,240		5,969		6,163		8,422		8,711	
April	6,472		5,399		5,488		8,108		7,296	
May	6,948		5,612		5,149		7,932		6,440	
June	6,686		5,986		5,372		8,148		5,848	
July	5,820		5,045		4,514		7,115		5,353	
August	6,033		5,789		4,724		7,020		5,745	
September	5,454		5,893		4,760		7,039		6,682	
October	6,087		6,078		4,309		6,723		7,458	
November	5,317		6,014		4,088		5,783		7,038	
December	4,867		6,269		4,234		5,666		7,591	
Total*	73,739		67,583		61,567		88,450		83,853	

*Totals include adjustments not shown in monthly figures

Table 12

Net Shipments of Steel Mill Products by Market Classifications
All Grades

(Thousands of net tons)

Market Classifications	1989		1988		1987		1986		1985	
	Tons	%	Tons	%	Tons	%	Tons	%	Tons	%
Steel for converting and processing	8,235	9.8	8,492	10.1	7,195	9.4	5,635	8.0	5,484	7.5
Independent forgers (not elsewhere classified)	852	1.0	804	1.0	668	0.9	538	0.8	708	1.0
Industrial fasteners	351	0.4	402	0.5	396	0.5	427	0.6	386	0.5
Steel service centers & distributors	20,769	24.7	21,037	25.1	19,840	25.9	17,478	24.9	18,439	25.2
Construction, including maintenance	8,318	9.9	8,607	10.3	7,681	10.0	7,336	10.4	7,900	10.8
Contractors' products	3,182	3.8	3,495	4.2	3,337	4.4	3,278	4.7	3,330	4.6
Total	11,500	13.7	12,102	14.4	11,018	14.4	10,614	15.1	11,230	15.4
Automotive:										
Vehicles, parts, etc.	11,560	13.7	12,259	14.6	11,121	14.5	11,627	16.5	12,689	17.3
Independent forgers	203	0.3	296	0.4	222	0.3	262	0.4	261	0.4
Total	11,763	14.0	12,555	15.0	11,343	14.8	11,889	16.9	12,950	17.7
Rail Transportation:										
Freight cars, pass. cars & locomotives	662	0.8	628	0.7	351	0.5	267	0.4	280	0.4
Rails and all other	567	0.1	518	0.6	407	0.5	531	0.7	781	1.0
Total	1,229	1.5	1,146	1.4	758	1.0	798	1.1	1,061	1.4
Shipbuilding and marine equipment	364	0.0	303	0.4	202	0.3	211	0.3	337	0.5
Aircraft and aerospace	43	0.1	37	...	36	...	39	...	39	...
Oil and gas industry	1,203	1.4	1,477	1.8	1,489	1.9	1,023	1.5	2,044	2.8
Mining, quarrying and lumbering	463	0.6	493	0.6	402	0.5	275	0.4	298	0.4
Agricultural:										
Agricultural machinery	462	0.5	444	0.6	394	0.5	373	0.6	442	0.7
All other	143	0.2	124	0.1	196	0.3	228	0.3	187	0.2
Total	605	0.7	568	0.7	590	0.8	601	0.9	629	0.9
Machinery, industrial equipment & tools	2,409	2.9	2,798	3.3	2,277	3.0	2,076	3.0	2,271	3.1
Electrical equipment	2,449	2.9	2,459	2.9	2,373	3.1	2,113	3.0	1,869	2.6
Appliances, utensils and cutlery	1,721	2.0	1,638	2.0	1,633	2.1	1,648	2.3	1,466	2.0
Other domestic and commercial equipment	1,140	1.4	1,200	1.4	1,149	1.5	1,173	1.7	1,215	1.7
Containers, packaging and shipping materials:										
Cans and closures	3,344	3.9	3,159	3.8	3,233	4.2	3,020	4.3	3,044	4.2
Barrels, drums and shipping pails	567	0.7	617	0.7	618	0.8	519	0.7	465	0.6
All other	548	0.7	645	0.8	521	0.7	574	0.9	580	0.8
Total	4,459	5.3	4,421	5.3	4,372	5.7	4,113	5.9	4,089	5.6
Ordnance and other military	169	0.2	192	0.2	199	0.3	228	0.3	267	0.4
Export (reporting companies only)	3,183	3.8	1,233	1.5	515	0.7	495	0.7	494	0.7
Nonclassified shipments	11,193	13.3	10,483	12.5	10,199	13.2	8,885	12.6	7,767	10.6
Total Shipments	**84,100**	**100.0**	**83,840**	**100.0**	**76,654**	**100.0**	**70,263**	**100.0**	**73,043**	**100.0**

Table 12 (continued)

Net Shipments of Steel Mill Products by Market Classifications
All Grades

(Thousands of net tons)

Market Classifications	1984		1983		1982		1981		1980	
	Tons	%	Tons	%	Tons	%	Tons	%	Tons	%
Steel for converting and processing	5,136	7.0	4,403	6.5	3,222	5.2	5,058	5.7	4,117	4.9
Independent forgers (not elsewhere classified)	775	1.1	573	0.8	579	0.9	1,035	1.2	933	1.1
Industrial fasteners	455	0.6	440	0.7	404	0.7	648	0.7	590	0.7
Steel service centers & distributors	18,364	24.9	16,710	24.7	13,067	21.2	17,637	19.9	16,172	19.3
Construction, including maintenance	7,522	10.2	7,271	10.8	6,283	10.2	8,446	9.5	8,742	10.4
Contractors' products	2,631	3.6	2,703	4.0	2,287	3.7	3,230	3.7	3,148	3.8
Total	10,153	13.8	9,974	14.8	8,570	13.9	11,676	13.2	11,890	14.2
Automotive:										
Vehicles, parts, etc.	12,571	17.1	12,052	17.8	9,111	14.8	12,808	14.5	11,855	14.2
Independent forgers	311	0.4	268	0.4	177	0.3	346	0.4	269	0.3
Total	12,882	17.5	12,320	18.2	9,288	15.1	13,154	14.9	12,124	14.5
Rail Transportation:										
Freight cars, pass. cars & locomotives	347	0.4	217	0.3	382	0.6	976	1.1	1,884	2.3
Rails and all other	1,091	1.5	720	1.1	638	1.1	1,186	1.3	1,271	1.5
Total	1,438	1.9	937	1.4	1,020	1.7	2,162	2.5	3,155	3.8
Shipbuilding and marine equipment	471	0.6	471	0.7	399	0.6	1,101	1.2	1,201	1.4
Aircraft and aerospace	37	0.1	21	...	30	...	37	...	53	0.1
Oil and gas industry	2,003	2.7	1,296	1.9	2,745	4.5	6,238	7.1	5,371	6.4
Mining, quarrying and lumbering	298	0.4	262	0.4	254	0.4	493	0.6	454	0.5
Agricultural:										
Agricultural machinery	480	0.6	417	0.6	425	0.7	820	0.9	852	1.0
All other	193	0.3	282	0.4	519	0.8	409	0.5	388	0.5
Total	673	0.9	699	1.0	944	1.5	1,229	1.4	1,240	1.5
Machinery, industrial equipment & tools	2,886	3.9	2,484	3.7	2,584	4.2	4,624	5.2	4,543	5.4
Electrical equipment	2,365	3.2	2,337	3.5	2,003	3.3	2,600	2.9	2,441	2.9
Appliances, utensils and cutlery	1,635	2.2	1,618	2.4	1,337	2.2	1,775	2.0	1,725	2.1
Other domestic and commercial equipment	1,339	1.8	1,363	2.0	1,247	2.0	1,622	1.8	1,701	2.0
Containers, packaging and shipping materials:										
Cans and closures	3,268	4.4	3,443	5.1	3,480	5.7	3,786	4.3	4,163	5.0
Barrels, drums and shipping pails	507	0.7	535	0.8	536	0.9	744	0.8	725	0.9
All other	577	0.8	554	0.8	454	0.7	762	0.9	663	0.7
Total	4,352	5.9	4,532	6.7	4,470	7.3	5,292	6.0	5,551	6.6
Ordnance and other military	242	0.3	244	0.4	203	0.3	166	0.2	177	0.2
Export (reporting companies only)	428	0.6	544	0.8	832	1.4	1,845	2.1	2,595	3.1
Nonclassified shipments	7,807	10.6	6,355	9.4	8,369	13.6	10,058	11.4	7,820	9.3
Total Shipments	**73,739**	**100.0**	**67,583**	**100.0**	**61,567**	**100.0**	**88,450**	**100.0**	**83,853**	**100.0**

Table 13

Shipments of Steel Mill Products by Market Classification–1989
All Grades

(Net Tons)

	Steel for Converting and Processing							
	Total Shipments	Less Shipments to Reporting Companies	Net Shipments	Independent Forgers (Not elsewhere classified)	Industrial Fasteners	Steel Service Centers and Distrib–utors	Construction Including Mainte–nance	Con–tractors' Products
Ingots, blooms, slabs, billets	2,379,308	1,778,302	601,006	231,291	112	94,093	47,369	2,569
Wire rods	1,916,383	24,082	1,892,301	21	87,570	19,377	817,676	25,427
Structural shapes(3″ & over)	70,894	–	70,894	10,000	–	1,095,412	1,979,584	1,394
Steel piling	–	–	–	–	–	123,855	234,951	–
Plates cut lengths & coils	1,284,108	418,396	865,712	1,308	5,311	2,628,693	820,232	44,522
Rails & railroad accessories	–	–	–	–	–	40,351	2,914	–
Bars–Hot rolled (including light shapes)	1,213,777	524,968	688,809	607,969	145,304	1,184,926	633,214	57,270
–Reinforcing	824,167	–	824,167	–	626	481,148	2,177,666	237,209
–Cold finished	25,827	1,944	23,883	1,703	8,777	334,309	1,576	9,096
Tool steel	2,523	2,523	–	–	–	–	–	–
Pipe and tubing–Standard	12,198	9,587	2,611	–	–	752,827	11,159	34,003
–Oil Country Goods	1,512	751	761	–	–	106,692	–	–
–Line	248	146	102	–	–	262,386	3,353	311
–Mechanical	14,263	3,241	11,022	5	127	148,671	13,073	9,385
–Pressure	45	34	11	–	–	7,141	94	320
–Structural	204	88	116	–	–	79,154	22,507	1,235
–Pipe for piling	1	–	1	–	–	14,624	12,895	615
–Stainless	2,486	238	2,248	–	–	12,404	2,140	792
Wire–Drawn and/or rolled	114,012	263	113,749	3	34,540	229,944	4,610	24,797
Black plate	27,406	1,785	25,621	–	–	99,927	6,460	42,711
Tin plate	48,699	–	48,699	–	–	201,863	4	248
Tin free steel	7,836	–	7,836	–	–	32,502	–	261
Tin coated sheets	37	–	37	–	–	29,574	–	585
Sheets–Hot rolled	2,651,072	957,616	1,693,456	–	9,731	5,298,389	430,872	266,306
–Cold rolled	1,514,348	242,642	1,271,706	–	7,954	4,388,448	83,124	784,099
Sheets & strip–Galvanized	42,329	4,444	37,885	–	16,491	2,631,160	633,645	1,455,257
–All other metallic coated	5,522	14	5,508	–	489	290,361	342,689	149,579
–Electrical	2,832	1,525	1,307	–	–	23,446	44	1,502
Strip–Hot rolled	84,997	74,520	10,477	96	29,515	88,580	35,293	3,759
–Cold rolled	40,137	4,833	35,304	4	4,238	69,002	1,401	28,501
Total – All Grades	12,287,171	4,051,942	8,235,229	852,400	350,785	20,769,259	8,318,545	3,181,753
%	–	–	9.8	1.0	0.4	24.7	9.9	3.8

Table 13 (continued)

Shipments of Steel Mill Products by Market Classification–1989
All Grades

(Net Tons)

	Automotive	Rail trans-portation	Ship building and Marine Equipment	Aircraft and Aerospace	Oil and Gas Industry	Mining Quarrying and Lumbering	Agricultural	Machinery, Industrial Equipment and Tools
Ingots, blooms, slabs, billets	37,553	112,438	586	23,754	22,330	613	6,040	104,160
Wire rods	95,523	1,800	2,042	598	6,587	203	48,214	173,937
Structural shapes(3" & over)	109,372	43,634	34,633	24	5,343	968	17,923	51,775
Steel piling	–	2,976	24	–	–	–	–	–
Plates cut lengths & coils	546,292	385,154	320,120	4,303	46,780	22,506	59,851	648,465
Rails & railroad accessories	–	506,768	–	–	–	9,444	–	–
Bars–Hot rolled (including light shapes)	1,249,962	84,663	4,683	5,758	46,809	310,106	107,396	446,302
–Reinforcing	–	–	–	–	1,749	75,637	–	574
–Cold finished	96,846	924	828	1,113	4,950	4,741	15,759	167,677
Tool steel	–	–	–	–	–	–	–	–
Pipe and tubing–Standard	7,181	1,188	–	–	115,069	177	1,546	1,885
–Oil Country Goods	–	–	–	–	536,698	–	–	–
–Line	3	190	–	–	385,639	112	589	478
–Mechanical	141,616	720	82	920	28,503	467	11,187	244,594
–Pressure	2	–	–	–	111	–	–	11,515
–Structural	2	–	–	–	1,230	–	2,503	1,922
–Pipe for piling	–	–	–	–	160	–	–	–
–Stainless	6	–	–	411	66	–	–	6,370
Wire–Drawn and/or rolled	18,838	387	130	88	73	193	1,900	37,426
Black plate	9,912	–	–	–	–	–	–	4,107
Tin plate	47,570	–	–	–	–	–	454	9,457
Tin free steel	1,476	–	–	–	–	–	–	102
Tin coated sheets	41,647	–	–	–	–	–	–	285
Sheets–Hot rolled	1,771,285	82,989	408	611	–	33,258	107,975	105,023
–Cold rolled	2,713,705	1,254	157	1,080	–	2,333	46,208	167,926
Sheets & strip–Galvanized	4,137,261	902	–	164	–	–	100,815	42,901
–All other metallic coated	357,288	–	–	(62)	–	–	15,967	9,437
–Electrical	266	1,026	29	21	–	–	–	2,451
Strip–Hot rolled	215,084	1,350	324	2,057	1,068	2,505	60,211	116,456
–Cold rolled	164,098	672	3	1,862	6	–	381	53,724
Total – All Grades	11,762,788	1,229,035	364,049	42,702	1,203,171	463,263	604,919	2,408,949
%	14.0	1.5	0.4	–	1.4	0.6	0.7	2.9

Table 13 (continued)

Shipments of Steel Mill Products by Market Classification–1989
All Grades

(Net Tons)

	Electrical Equipment	Appliances Utensils and Cutlery	Other Domestic and Commercial Equipment	Containers, Packaging and Shipping Materials	Ordnance and Other Military	Export (Reporting Companies Only)	Non-classified Shipments	Total	%
Ingots, blooms, slabs, billets	84	–	362	15,451	56,328	214,551	512,267	2,082,957	2.5
Wire rods	23,126	2,040	139,770	115	–	10,922	805,877	4,153,126	4.9
Structural shapes(3″ & over)	2,487	–	92	121	28	38,698	1,525,045	4,987,427	5.9
Steel piling	–	–	–	–	–	4,585	1,761	368,152	0.4
Plates cut lengths & coils	48,981	10,722	13,638	8,979	42,137	240,753	620,761	7,385,220	8.8
Rails & railroad accessories	–	–	–	–	–	2,338	–	561,815	0.7
Bars–Hot rolled (including light shapes)	24,205	15,455	33,142	421	23,061	46,804	1,900,845	7,617,104	9.1
–Reinforcing	–	–	–	–	–	28,266	1,188,329	5,015,371	6.0
–Cold finished	5,402	6,668	7,791	1	11,497	6,862	761,631	1,472,034	1.8
Tool steel	–	–	–	–	–	1,692	65,508	67,200	0.1
Pipe and tubing–Standard	175,405	–	3,415	–	–	10,343	57,831	1,174,640	1.4
–Oil Country Goods	73	–	–	–	–	219,875	44,514	908,613	1.1
–Line	1,169	–	121	–	–	17,457	199,371	871,281	1.0
–Mechanical	1,542	9,567	20,055	–	4,561	19,771	140,433	806,301	1.0
–Pressure	21	–	–	–	–	1,902	27,874	48,991	0.1
–Structural	432	–	102	–	–	250	11,166	120,619	0.1
–Pipe for piling	–	–	–	–	–	252	3,478	32,025	0.0
–Stainless	230	87	11	–	–	1,071	22,285	48,121	0.1
Wire–Drawn and/or rolled	6,630	4,703	61,151	1,614	208	2,952	458,484	1,002,420	1.2
Black plate	1,456	1,238	16,180	86,409	–	16,491	–	310,512	0.4
Tin plate	1,891	8,567	6,205	2,400,247	–	62,795	–	2,788,000	3.3
Tin free steel	6,964	21	–	860,372	–	24,497	–	934,031	1.1
Tin coated sheets	4,162	644	787	5,178	–	89	–	82,988	0.1
Sheets–Hot rolled	371,177	78,500	109,560	218,064	978	1,261,230	1,058,236	12,898,048	15.3
–Cold rolled	1,312,805	1,256,084	616,618	614,512	11,727	333,175	241,360	13,854,275	16.5
Sheets & strip–Galvanized	130,808	238,753	70,940	28,144	109	446,130	721,662	10,693,027	12.7
–All other metallic coated	676	44,039	12,572	1,981	–	73,265	73,148	1,376,937	1.6
–Electrical	307,539	859	1,931	–	–	54,032	89,746	484,249	0.6
Strip–Hot rolled	3,002	3,591	7,[illegible]	4,048	676	24,604	474,607	1,084,723	1.3
–Cold rolled	18,784	39,450	17,638	213,088	17,698	17,533	186,548	870,185	1.0
Total – All Grades	2,449,051	1,720,988	1,139,801	4,458,745	169,008	3,183,185	11,192,767	84,100,392	100.0
%	2.9	2.0	1.4	5.3	0.2	3.8	13.3	100.0	–

EXPORTS AND IMPORTS

The following tables, compiled from Department of Commerce report on Foreign Commerce and Navigation of the United States, give the tonnage of iron and steel products exported and imported during the period 1985–1989. Exports and imports of iron and steel products not stated by weight in the reports are necessarily omitted.

Table 14

Exports of Iron and Steel Products

(Net Tons)

Products	1989	1988	1987	1986	1985
Steel Mill Products:					
Ingots, blooms, billets, slabs, etc.	390,816	61,430	73,543	58,885	89,708
Wire rods	36,094	10,161	8,217	5,876	4,740
Structural shapes (3" & over)	164,435	61,494	63,159	31,697	41,633
Steel piling	5,243	428	2,552	5,729	628
Plates- cut lengths	137,108	119,393	85,211	69,565	82,988
-in coils	493,587	++	++	++	++
Rails-standard	5,542	4,435	6,321	1,660	1,888
-all other	5,609	3,174	3,221	2,402	4,682
Railroad accessories	5,884	6,038	2,447	5,385	4,367
Wheels and axles	+	+	3,766	3,685	2,493
Bars-hot rolled	87,265	78,300	66,007	45,253	62,719
-shapes under 3"	16,745	13,461	11,563	6,995	7,139
-concrete reinforcing	87,801	23,480	20,550	14,197	7,409
-cold finished	40,854	21,717	20,687	12,636	19,735
Tool steel	18,492	4,502	3,061	2,144	2,094
Standard pipe	23,253	31,177	20,686	14,375	22,617
Oil country goods	319,871	95,057	29,746	35,619	62,211
Line pipe	27,927	13,218	5,714	10,531	12,737
Mechanical tubing	4,375	36,193	35,523	25,461	38,599
Pressure tubing	+	11,459	6,892	4,492	6,158
Stainless pipe & tubing	8,067	6,198	8,751	3,040	6,009
Nonclassified pipe & tubing	43,949	54,723	41,077	25,916	46,243
Structural pipe & tubing	14,427	2,365	3,767	1,616	4,748
Pipe for piling	1,127	+++	+++	+++	+++
Wire-drawn	31,344	36,164	26,146	26,081	18,758
-barbed, iron or steel	+	+	1,695	2,636	834
-nails and staples	+	+	7,905	5,862	5,445
Black plate	...	139,125	73,967	70,488	32,754
Tin plate	188,291	287,403	158,998	206,296	130,027
Tin free	29,531	4,171	3,663	2,699	1,123
Sheets-hot rolled	1,156,378	419,037	103,962	75,906	56,696
-cold rolled	498,680	66,157	29,458	28,094	32,758
Sheets & strip-galv.-hot dipped	333,012	266,874	58,121	27,365	29,261
-electrolytic	111,159				
-all other metallic coated	103,355	66,474	62,764	52,457	42,761
-electrical	54,712	42,996	18,116	10,122	14,132
Strip-hot rolled	44,476	32,331	28,321	13,683	12,482
-cold rolled	88,534	49,488	32,942	20,319	23,401
Total Steel Mill Products	4,577,944	2,068,623	1,128,519	929,156	931,976
Carbon	4,106,839	1,494,960	772,962	687,029	648,063
Alloy	368,254	486,996	271,739	193,723	228,288
Stainless	102,851	84,666	83,818	48,404	55,625

+Included in Other Steel Products ++Included in Sheets hot rolled. +++Included in Structural pipe & tubing

Table 14 (continued)

Exports of Iron and Steel Products

(Net Tons)

Products	1989	1988	1987	1986	1985
Other Steel Products:					
Plates-fabricated	...	2,485	2,296	3,088	5,633
Sheets-fabricated	...	17,693	8,412	8,046	8,044
Structural shapes - fabricated	124,790	49,692	35,662	34,098	46,770
Shapes - cold formed	2,903	...	...	...	...
Sashes and frames	8,402	7,246	5,462	4,242	6,815
Rails - used	59,320	42,184	56,804	77,725	109,560
Railway track material	5,986	4,648	5,774	2,812	2,843
Wheels and axles+	4,124	5,209	...	...	...
Fence or sign posts	1,393	...	...	...	...
Wire rope	3,171	10,519	8,358	7,465	7,149
Wire strand	6,758				
Wire springs	37,050	31,661	23,189	11,069	16,135
Grill, netting & fencing	9,367	2,292	3,356	2,627	2,415
Nails and staples+	9,688	11,291	...	...	...
Barbed wire+	3,175	1,746	...	...	...
Industrial fasteners	135,626	78,439	55,608	44,186	58,944
Fabricated wire products	...	9,061	9,916	11,347	10,119
Architectural & ornamental work	2,254	1,668	1,472	2,552	1,765
Chains & parts	15,279	11,672	9,054	6,846	8,129
Cast steel rolls	4,856	3,608	1,880	1,243	1,471
Grinding balls	67,003	...	...	...	...
Conduit	5,113	...	...	...	...
Pipe & tube fittings	13,645	36,060	30,820	21,528	28,956
Forgings	...	73,279	78,202	46,649	46,269
Total Other Steel Products	**519,903**	**400,453**	**336,263**	**285,522**	**361,016**
Total Steel Products	**5,097,847**	**2,469,077**	**1,464,782**	**1,214,678**	**1,292,991**
Iron Products & Ferroalloys:					
Cast iron tube,pipes,profiles & fittings	71,834	56,736	26,991	61,632	37,507
Malleable cast iron pipe fittings	7,607	4,872	4,585	3,168	3,500
Castings and forgings	46,889	55,970	67,197	40,473	94,419
Pig iron	11,746	71,454	50,072	47,051	31,614
Sponge iron	25,490	18,810	16,629	11,529	10,773
Ferroalloys	112,918	80,470	77,460	72,722	98,417
Total Iron Products & Ferroalloys	**276,495**	**288,313**	**242,935**	**236,576**	**276,231**
Grand Total	**5,374,332**	**2,757,389**	**1,707,717**	**1,451,254**	**1,569,222**
Iron and steel scrap	13,305,433	10,097,557	10,366,667	11,703,677	9,948,395

+Prior to 1988 included in Steel Mill Products

Table 15

Exports of Iron and Steel Products

(Net Tons)

Products	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Steel Mill Products:										
Ingots, blooms, billets, slabs, etc.	390,816	61,430	73,543	58,885	89,708	73,536	102,754	362,293	540,598	912,309
Wire rods	35,094	10,161	8,217	5,876	4,740	8,646	6,137	24,961	101,774	212,347
Structural shapes and pilings	169,678	61,922	65,711	37,426	42,261	32,403	49,116	62,018	138,988	153,754
Plates	630,695	119,393	85,211	69,565	82,988	88,184	101,982	121,930	199,534	207,840
Rails and accessories	17,035	13,647	15,755	13,132	13,430	19,078	20,071	39,192	85,712	134,529
Bars and toll steel	251,157	141,460	121,868	81,225	99,096	133,595	170,052	222,608	337,463	434,068
Pipe and tubing	442,996	250,390	152,156	121,050	199,319	207,426	257,952	430,626	472,436	470,150
Wire and wire products	31,344	36,164	35,746	34,579	25,037	27,968	27,259	33,353	49,302	54,239
Tin mill products	217,822	430,699	236,628	279,473	163,904	162,020	249,556	312,017	470,810	886,482
Sheets and strip	2,390,306	943,357	333,684	227,946	211,491	227,557	213,698	233,389	507,176	634,965
Total Steel Mill Products	4,577,944	2,068,623	1,128,519	929,156	931,976	980,414	1,198,577	1,842,267	2,903,793	4,100,683
Other Steel Products	519,903	400,453	336,263	285,522	361,016	378,098	339,067	453,689	568,486	561,545
Total Steel Products	5,097,847	2,469,077	1,464,782	1,214,678	1,292,991	1,358,512	1,537,644	2,295,956	3,472,279	4,662,228
Iron Products and ferroalloys	276,485	288,313	242,935	236,576	276,231	368,081	227,094	292,029	302,446	445,110
Grand total	5,374,332	2,757,389	1,707,717	1,451,254	1,569,222	1,726,592	1,764,738	2,587,985	3,774,725	5,107,338

Table 16

Exports of Steel Mill Products

(Net Tons)

Months	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
January	257,195	89,457	65,326	86,828	65,997	86,253	94,513	173,403	255,736	197,768
February	237,345	100,219	87,135	72,764	73,275	73,074	92,122	153,543	212,903	295,675
March	606,209	113,654	83,619	73,830	76,528	79,994	88,940	197,296	260,094	276,266
April	333,676	116,333	94,357	72,371	71,252	72,687	105,754	147,572	291,048	321,393
May	355,358	124,344	114,511	61,209	84,930	90,031	100,931	194,314	259,418	337,821
June	403,278	125,891	98,864	70,194	83,233	85,895	100,182	180,094	279,433	417,941
July	302,744	128,280	84,093	67,643	81,333	89,790	108,250	145,546	217,564	398,417
August	461,326	139,352	91,445	85,591	100,855	94,076	100,123	152,434	194,438	448,915
September	363,849	206,760	98,604	102,950	63,385	76,358	99,000	158,258	228,080	400,518
October	617,752	244,207	86,113	71,825	77,090	88,558	109,868	133,356	233,084	366,179
November	251,373	242,806	114,246	87,180	73,202	61,026	114,210	105,988	244,423	315,875
December	386,493	437,323	110,208	76,770	80,894	82,645	84,459	97,370	227,490	323,827
Total*	4,577,944	2,068,623	1,128,519	929,156	931,976	980,414	1,198,577	1,842,267	2,903,793	4,100,683

*Totals include adjustments not shown in monthly figures.

Table 17

Exports of Iron and Steel Products by Countries of Destination–1989

(Net Tons)

Products	Grand Total	Canada	Latin America				
			Mexico	Vene-zuela	Brazil	Argen-tina	Total Latin Am.
Steel Mill Products:							
Ingots, blooms, billets, slabs, etc.	390,816	17,975	9,142	426	5,536	13	70,495
Wire rods	36,094	16,512	13,620	97	51	2	15,659
Structural shapes (3" & over)	164,435	118,239	23,590	1,423	383	20	33,966
Steel piling	5,243	785	652	...	4	1	1,431
Plates- cut lengths	137,108	26,675	9,706	4,583	80	90	26,705
-in coils	493,587	16,029	26,891	...	10,361	...	38,345
Rails-standard	5,542	2,078	1,176	446	...	46	3,185
-all other	5,609	532	4,481	11	...	53	4,645
Railroad accessories	5,884	4,414	1,033	374	...	...	1,467
Bars-hot rolled	87,265	47,690	8,835	723	53	7	28,905
-shapes under 3"	16,745	2,482	3,506	184	8	96	6,353
-concrete reinforcing	87,801	47,215	2,244	...	...	...	6,535
-cold finished	40,854	8,587	8,566	84	13	114	13,155
Tool steel	18,492	1,290	6,485	...	19	20	6,658
Standard pipe	23,253	3,773	3,987	265	112	58	8,361
Oil country goods	319,871	8,211	2,416	2,304	1,323	601	34,218
Line pipe	27,927	6,653	3,472	900	35	24	10,104
Mechanical tubing	4,375	3,509	645	...	...	...	704
Stainless pipe & tubing	8,067	2,465	740	9	7	12	1,085
Nonclassified pipe & tubing	43,949	20,494	6,376	314	72	213	11,502
Structural pipe & tubing	14,427	5,730	4,430	1	...	...	5,197
Pipe for piling	1,127	276	49	3	28	...	416
Wire-drawn	31,344	11,397	9,059	117	1,674	41	13,343
Tin plate	188,291	4,443	24,942	3	...	970	38,174
Tin free	29,531	474	15,680	...	21	577	16,706
Sheets-hot rolled	1,156,378	15,088	38,766	301	9,278	17,344	69,313
-cold rolled	498,680	46,555	137,843	1,278	35	473	170,517
Sheets & strip-galv.-hot dipped	333,012	40,013	18,122	3	...	40	21,155
-electrolytic	111,159	47,365	22,711	865	46	8	28,007
-all other metallic coated	103,355	49,571	23,236	114	54	483	28,638
-electrical	54,712	5,310	15,950	1,671	39	393	21,222
Strip-hot rolled	44,476	6,024	10,509	276	66	22,040	33,521
-cold rolled	88,534	50,280	14,033	1,419	145	134	19,541
Total Steel Mill Products	4,577,944	638,137	472,892	18,194	29,443	43,873	789,226
Carbon	4,106,839	555,040	372,073	10,240	28,298	42,413	627,430
Alloy	368,254	59,229	77,275	5,120	718	1,206	123,069
Stainless	102,851	23,867	23,544	2,833	427	253	36,707

Country detail may not add to regional total because of omissions of some countries.

Table 17 (continued)

Exports of Iron and Steel Products by Country of Destination -1989

(Net Tons)

Products	Europe									
	European Economic Community									Total
	United Kingdom	Nether-lands	Belgium	France	Fed. Rep. Germany	Italy	Spain	Total E.E.C.*	Sweden	Other Europe
Steel Mill Products:										
Ingots, blooms, billets, slabs, etc.	5,616	228	87	1,382	1,447	1,257	5	10,239	134	30,011
Wire rods	150	129	91	34	69	90	85	656	90	190
Structural shapes (3" & over)	1,027	611	96	55	228	46	289	2,456	31	726
Steel piling	61	1	4	...	16	...	8	153	...	65
Plates- cut lengths	689	45	39	19	219	33,410	5,657	40,125	8	49
-in coils	169	73	10,738	11,189	5,482	103,445	4	131,290	...	188
Rails-standard	28	...	2	...	2	...	...	32	...	...
-all other	4	...	140	...	11	1	21	177	...	99
Railroad accessories	...	...	...	...	...	...	...	2	...	...
Bars-hot rolled	943	174	454	280	170	1,589	24	3,759	2,396	3,006
-shapes under 3"	146	72	111	38	29	260	83	741	10	1,752
-concrete reinforcing	15	...	...	26	1	23	24	89	...	27,780
-cold finished	1,794	1,655	6,696	553	672	148	8	11,620	188	1,870
Tool steel	120	47	10	49	716	141	...	1,086	...	2
Standard pipe	84	1,873	...	13	165	123	12	2,382	31	34
Oil country goods	2,541	4,407	189	45	391	39,544	...	47,120	159	72,337
Line pipe	85	20	...	13	15	622	...	831	...	308
Mechanical tubing	25	30	...	8	...	1	...	64	1	2
Stainless pipe & tubing	119	44	30	79	33	177	2	514	11	93
Nonclassified pipe & tubing	860	637	41	214	77	1,673	47	3,786	144	272
Structural pipe & tubing	36	...	1	13	89	574	...	713	...	...
Pipe for piling	67	...	...	...	...	...	160	232	...	...
Wire-drawn	925	151	56	249	1,493	47	11	3,055	131	714
Tin plate	6,580	8	2,264	56	...	33,479	3,336	45,815	28	1,989
Tin free	2,034	...	...	...	8	1,672	285	3,998	...	12
Sheets-hot rolled	304	39	27	44	73	23,317	25	24,044	43	44
-cold rolled	2,111	28	110	191	1,278	10,422	265	14,457	7	26,523
Sheets & strip-galv.-hot dipped	3,273	10	...	315	14	...	...	3,618	...	93,069
-electrolytic	170	...	...	2	8	552	85	818	11	11
-all other metallic coated	476	674	129	20	293	1,231	122	2,950	14	1,744
-electrical	159	2	883	...	530	238	...	1,833	15	15
Strip-hot rolled	467	9	5	23	66	11	...	645	6	40
-cold rolled	1,612	247	2,074	533	640	309	115	5,802	74	301
Total Steel Mill Products	32,693	11,214	24,277	15,443	14,237	254,405	10,674	365,105	3,535	263,245
Carbon	20,751	4,921	22,339	12,873	10,120	242,215	10,002	324,731	2,644	218,898
Alloy	7,371	5,584	1,694	1,821	2,634	11,165	215	30,752	542	42,261
Stainless	4,571	709	243	750	1,483	1,024	458	9,623	349	2,086

*Includes total for Ireland, Denmark, Greece, Luxembourg & Portugal

Table 17 (continued)

Exports of Iron and Steel Products by Country of Destination -1989

(Net Tons)

Products	Asia					Oceania		Africa	
	Peoples Republic of China	Korea Republic	China Taiwan	Japan	Total Asia	Australia	Total Oceania	Egypt	Total Africa
Steel Mill Products:									
Ingots, blooms, billets, slabs, etc.	1,220	60,882	61,777	8,164	224,622	3,097	3,108	32,886	34,366
Wire rods	25	88	1,209	117	2,639	320	334	11	105
Structural shapes (3" & over)	115	382	603	310	7,452	869	1,286	70	310
Steel piling	...	50	167	542	1,840	16	16	926	952
Plates- cut lengths	8,835	1,060	591	11,738	41,550	30	70	...	1,935
-in coils		39,466	...	138,307	307,560	42	42	...	132
Rails-standard	...	69	4	46	243	...	...	2	2
-all other	...	5	6	16	131	...	24	...	3
Railroad accessories	...	...	...	2	2	...	...	...	...
Bars-hot rolled	244	473	46	306	2,449	926	928	...	529
-shapes under 3"	...	93	201	3,195	5,325	65	66	24	26
-concrete reinforcing	...	3,419	...	5	5,932	...	206	...	41
-cold finished	35	417	1,690	271	4,970	358	374	75	278
Tool steel	2,076	79	182	54	9,044	56	57	351	354
Standard pipe	63	398	1,118	74	4,121	3,885	3,911	7	671
Oil country goods	111,001	256	518	570	137,166	732	1,178	5,330	19,642
Line pipe	10	145	240	264	4,829	141	156	72	5,046
Mechanical tubing	1	7	...	9	52	2	44	...	...
Stainless pipe & tubing	1,517	151	144	126	2,842	1,055	1,056	8	13
Nonclassified pipe & tubing	1,080	520	917	382	4,853	2,239	2,247	595	794
Structural pipe & tubing	219	380	2	6	1,080	1,211	1,509	...	196
Pipe for piling	...	...	...	8	9	126	126	...	67
Wire-drawn	4	358	108	774	1,997	449	500	69	339
Tin plate	4,315	144	4,861	6,385	64,457	24	1,281	7,311	32,133
Tin free	128	36	1,698	1,231	8,185	...	36	...	119
Sheets-hot rolled	24	568,895	44,080	370,656	1,047,581	265	276	...	33
-cold rolled	153,530	1,122	15,916	1,863	205,283	30,767	30,812	49	4,531
Sheets & strip-galv.-hot dipped	92,255	33,734	63	27,993	169,312	1,099	1,110	4,725	4,736
-electrolytic	18,123	10,271	204	371	32,044	2,840	2,840	...	75
-all other metallic coated	12,171	779	618	288	19,682	462	757	...	12
-electrical	3,772	348	2,109	41	26,272	26	27	...	32
Strip-hot rolled	...	88	342	3,137	4,014	73	73	113	160
-cold rolled	83	1,120	365	473	11,149	1,126	1,322	75	138
Total Steel Mill Products	410,819	725,232	139,781	577,723	2,358,685	52,299	55,776	52,699	107,770
Carbon	384,967	712,311	129,787	571,755	2,243,934	43,010	46,264	50,940	90,541
Alloy	24,178	6,049	6,267	3,989	90,456	6,037	6,219	1,522	16,248
Stainless	1,674	6,873	3,727	1,980	24,295	3,253	3,292	237	982

Table 17A

Exports of Iron and Steel Products by Countries of Destination–1989

(Net Tons)

Products	Grand Total	Canada	Latin America				
			Mexico	Vene-zuela	Brazil	Argen-tina	Total Latin Am.
Other Steel Products:							
Structural shapes - fabricated	124,790	15,210	24,555	1,101	1,491	11,395	58,236
Shapes - cold formed	2,903	1,026	497	10	...	311	1,486
Sashes and frames	8,402	1,521	796	...	...	...	3,310
Rails - used	59,320	3,942	51,866	...	...	...	54,787
Railway track material	5,986	2,545	1,633	608	1	2	3,156
Wheels and axles	4,124	2,348	173	72	47	1	696
Fence or sign posts	1,393	817	103	...	...	...	217
Wire rope	3,171	1,227	621	1	3	3	953
Wire strand	6,758	1,117	2,319	26	1	56	2,788
Wire springs	37,050	28,513	4,995	19	95	18	5,361
Grill, netting & fencing	9,367	6,328	214	...	...	1	1,813
Nails and staples	9,688	4,825	486	106	12	2	1,573
Barbed wire	3,175	867	979	...	9	...	1,591
Industrial fasteners	135,626	75,588	33,075	261	139	60	36,968
Architectural & ornamental work	2,254	415	17	...	...	...	343
Chains & parts	15,279	5,310	1,851	186	47	33	3,456
Cast steel rolls	4,856	4,411	59	70	5	...	139
Grinding balls	67,003	39,498	10,685	233	6	...	13,733
Conduit	5,113	2,516	47	...	11	7	743
Pipe & tube fittings	13,645	2,937	1,734	93	103	23	4,218
Total Other Steel Products	519,903	200,963	136,702	2,786	1,969	11,913	195,568
Total Steel Products	5,097,847	839,100	609,594	20,980	31,412	55,786	984,794
Iron Products & Ferroalloys:							
Cast iron tube,pipes,profiles & fittings	71,833	16,989	3,123	148	122	54	27,709
Malleable cast iron pipe fittings	7,607	4,799	449	66	11	7	1,222
Castings and forgings	46,889	34,128	2,556	44	21	13	4,128
Pig iron	11,746	8,482	2,856	...	...	...	2,856
Sponge iron	25,490	5,984	2,920	99	3,002	554	6,900
Ferroalloys	112,918	29,736	14,863	1,003	297	303	19,947
Total Iron Products & Ferroalloys	276,486	110,119	26,766	1,359	3,453	931	62,763
Grand Total	5,374,333	949,219	636,360	22,339	34,865	56,717	1,047,557
Iron and steel scrap	13,305,433	1,033,043	573,578	81,723	63,317	427	895,066

Country detail may not add to regional total because of omissions of some countries.

Table 17A (continued)

Exports of Iron and Steel Products by Country of Destination –1989

(Net Tons)

Products	Europe									Total Other Europe
	European Economic Community									
	United Kingdom	Nether-lands	Belgium	France	Fed. Rep. Germany	Italy	Spain	Total E.E.C.*	Sweden	
Other Steel Products:										
Structural shapes - fabricated	9,156	443	230	725	707	27	294	11,984	38	732
Shapes - cold formed	6	...	22	...	7	7	27	69	...	22
Sashes and frames	657	4	...	47	75	13	62	943	2	185
Rails - used	...	...	...	...	523	...	...	523	...	20
Railway track material	23	...	...	...	6	...	6	36	46	49
Wheels and axles	32	...	16	1	86	9	2	148	1	413
Fence or sign posts	27	...	1	14	173	...	6	222	71	99
Wire rope	149	1	3	33	198	53	1	441	91	98
Wire strand	47	65	277	43	7	75	7	520	16	502
Wire springs	411	50	14	25	316	53	17	968	16	101
Grill, netting & fencing	65	7	3	34	4	1	98	214	24	138
Nails and staples	359	39	187	292	205	41	4	1,218	26	142
Barbed wire	349	...	...	44	10	11	22	440	8	53
Industrial fasteners	4,883	1,012	571	2,175	2,004	928	382	12,556	459	1,083
Architectural & ornamental work	749	62	72	14	118	...	...	1,016	196	397
Chains & parts	564	655	213	175	356	53	213	2,275	20	132
Cast steel rolls	77	...	...	52	...	...	...	129	...	80
Grinding balls	50	178	531	1	14	169	2	956	...	545
Conduit	25	13	32	8	22	57	...	196	1	94
Pipe & tube fittings	537	181	10	602	334	68	31	2,050	65	175
Total Other Steel Products	18,167	2,710	2,181	4,284	5,163	1,565	1,173	36,906	1,080	5,061
Total Steel Products	50,860	13,924	26,458	19,727	19,400	255,970	11,847	412,011	4,615	268,706
Iron Products & Ferroalloys:										
Cast iron tube,pipes,profiles & fittings	811	108	76	24	327	27	789	2,185	33	130
Malleable cast iron pipe fittings	162	22	9	44	132	6	8	402	25	52
Castings and forgings	357	77	497	1,192	784	113	45	3,097	21	135
Pig iron	17	...	...	...	...	...	...	17	...	...
Sponge iron	489	354	552	135	239	106	65	1,942	3,469	3,522
Ferroalloys	8,861	77	17,513	1,574	5,621	680	640	35,238	117	334
Total Iron Products & Ferroalloys	10,697	638	18,648	2,971	7,103	932	1,547	42,882	3,650	4,169
Grand Total	61,557	14,562	45,106	22,698	26,503	256,902	13,394	454,893	8,265	272,875
Iron and steel scrap	34,222	32,004	38,624	2,332	30,036	161,828	658,177	1,129,419	43,571	3,325,821

*Includes total for Ireland, Denmark, Greece, Luxembourg & Portugal

Table 17A (continued)

Exports of Iron and Steel Products by Country of Destination -1989

(Net Tons)

Products	Asia					Oceania		Africa	
	Peoples Republic of China	Korea Republic	China Taiwan	Japan	Total Asia	Australia	Total Oceania	Egypt	Total Africa
Other Steel Products:									
Structural shapes - fabricated	515	1,540	1,068	3,326	33,009	1,127	1,269	2,336	4,350
Shapes - cold formed	...	...	...	115	165	136	136	...	...
Sashes and frames	7	169	108	287	2,051	285	316	19	76
Rails - used	...	...	...	...	48	...	...	...	...
Railway track material	1	7	5	44	160	11	13	1	26
Wheels and axles	...	12	3	...	28	50	50	...	438
Fence or sign posts	...	14	1	2	25	9	9	2	3
Wire rope	8	32	2	23	329	63	66	...	57
Wire strand	56	54	13	1,236	1,637	19	32	11	162
Wire springs	19	207	62	90	1,856	194	215	19	35
Grill, netting & fencing	2	245	21	37	422	81	144	128	309
Nails and staples	19	53	65	460	1,387	250	340	6	204
Barbed wire	...	2	9	29	133	14	21	...	72
Industrial fasteners	155	407	961	1,510	5,826	3,248	3,332	65	272
Architectural & ornamental work	...	12	...	31	80	...	4	...	...
Chains & parts	30	230	204	559	2,091	959	1,065	568	948
Cast steel rolls	9	23	...	...	97	...	...	...	...
Grinding balls	17	84	1,121	2,848	6,237	459	3,939	1,520	2,094
Conduit	...	1	14	66	734	90	94	717	736
Pipe & tube fittings	104	382	691	237	3,535	290	353	172	376
Total Other Steel Products	941	3,474	4,349	10,902	59,848	7,285	11,397	5,564	10,159
Total Steel Products	411,760	728,697	144,130	588,625	2,418,533	59,584	67,173	58,279	117,929
Iron Products & Ferroalloys:									
Cast iron tube,pipes,profiles & fittings	1,103	337	569	335	23,208	588	645	44	967
Malleable cast iron pipe fittings	8	142	22	82	933	76	104	54	95
Castings and forgings	22	207	1,212	562	3,688	564	663	850	1,049
Pig iron	...	20	...	...	20	19	19	...	353
Sponge iron	42	402	807	5,342	6,814	302	304	...	24
Ferroalloys	138	8,095	2,663	12,019	24,642	2,548	2,601	...	424
Total Iron Products & Ferroalloys	1,315	9,203	5,278	18,341	59,305	4,097	4,336	948	2,912
Grand Total	413,075	737,900	149,408	606,966	2,477,838	63,681	71,509	59,227	120,841
Iron and steel scrap	49,062	4,001,932	406,620	477,679	6,842,819	1,582	1,770	77,268	77,495

Table 18

Imports of Iron and Steel Products

(Net Tons)

Products	1989	1988	1987	1986	1985
Steel Mill Products:					
Ingots, blooms, billets, slabs, etc.	2,197,833	2,844,979	2,282,654	2,084,096	2,440,368
Wire rods	1,107,506	1,493,833	1,467,030	1,357,875	1,479,176
Structural shapes (3" & over)	1,399,379	1,847,287	1,778,314	1,748,604	1,978,711
Steel piling	86,337	112,067	109,705	107,013	139,807
Plates- cut lengths	937,518	1,175,461	1,096,424	1,106,904	1,377,921
-in coils	499,605	557,744	++	++	++
Rails and track accessories	157,411	268,493	227,869	266,084	358,441
Wheels and axles	+	+	18,120	9,626	23,604
Bars-Hot rolled	775,746	679,527	610,256	582,580	645,631
-Shapes under 3"	109,611	125,687	140,469	166,369	140,318
-Concrete reinforcing	233,735	357,253	351,632	454,735	411,450
-Cold finished	188,642	235,778	213,466	224,696	314,865
Tool steel	91,140	44,095	40,599	44,749	37,142
Standard pipe	806,325	964,039	859,204	697,034	977,539
Oil country goods	429,949	988,194	570,440	616,743	1,497,972
Line pipe	526,988	552,015	550,071	817,861	1,042,356
Mechanical tubing	281,059	381,682	283,619	237,247	328,251
Pressure tubing	44,944	50,908	26,528	23,981	43,985
Stainless pipe & tubing	37,259	38,532	28,231	35,653	33,876
Nonclassified pipe & tubing	12,612	28,429	23,332	28,524	37,577
Structural pipe & tubing	323,921	278,870	428,758	479,768	502,112
Pipe for piling	10,266	+++	+++	+++	+++
Wire-Drawn	494,308	552,780	568,407	594,433	623,076
-Bale ties & baling wire	+	+	1,719	696	885
-Galvanized wire fencing	+	+	13,172	11,509	14,099
-Wire nails	+	+	440,746	393,231	402,425
-Barbed wire	+	+	16,643	22,157	15,336
Black Plate	144,643	154,229	185,976	205,937	241,375
Tin plate	337,333	294,552	332,306	359,658	398,564
Tin free steel	114,903	97,460	101,172	110,569	145,606
Sheets-Hot rolled	1,898,494	2,206,599	2,515,178	2,395,926	2,785,583
-Cold rolled	1,876,999	2,105,755	2,244,958	2,692,824	2,701,645
Sheets & strip-Galv.-hot dipped	1,297,431	1,948,811	2,306,233	2,321,108	2,465,419
-electrolytic	327,813				
-All other metallic coated	235,830	248,111	323,709	209,730	204,250
-Electrical	85,329	73,960	69,824	81,703	118,834
Strip-Hot rolled	110,538	49,553	43,197	43,557	62,154
-Cold rolled	139,570	134,211	144,536	159,135	265,296
Total Steel Mill Products	**17,320,978**	**20,890,893**	**20,414,493**	**20,692,316**	**24,255,851**
Carbon	15,709,477	19,455,518	19,217,998	19,542,052	22,863,841
Alloy	1,259,056	1,119,418	902,082	855,078	1,120,731
Stainless	352,445	315,958	294,413	295,186	271,079

+Included in Other Steel Products. ++Included in Sheets Hot Rolled . +++Included in Structural Pipe & Tubing .

Table 18 (continued)

Imports of Iron and Steel Products

(Net Tons)

Products	1989	1988	1987	1986	1985
Other Steel Products:					
Structural shapes, fabricated	185,421	238,267	274,712	424,966	354,011
Shapes-Cold formed	7,372	1,302	1,107	2,178	1,951
Sashes and frames	14,297	6,104	7,996	4,394	3,085
Rails - used	94,182	...	...	...	...
Railway track material+	6,669	205	...	...	...
Wheels and axles+	58,873	50,734	...	...	...
Fence or sign posts	3,566	864	7,926	4,930	8,731
Wire-Nonmetalic coated	9,712	6,943	6,175	1,451	1,479
Wire rope	117,358	137,112	119,691	129,449	156,473
Wire strand	195,515	173,112	176,030	177,225	176,376
Wire springs	239,495	...	...	...	...
Woven wire fabric	11,754	51,594	54,796	51,699	40,276
Grill, netting & fencing+	70,258	11,879	...	...	...
Nails and staples++	390,594	406,837	48,298	45,437	41,553
Barbed wire+	12,440	15,538	...	...	...
Bale ties & baling wire	955	1,866	303	615	743
Industrial fasteners	752,357	710,370	692,844	638,325	626,799
Architectural & ornamental work	887	...	...	...	...
Chains & parts	73,085	...	...	...	...
Cast steel rolls	1,381	...	...	...	...
Grinding balls	5,607	5,874	4,655	4,134	3,559
Blanks, nonrectangular flat rolled	...	139,732	84,076	47,822	36,156
Conduit	1,107	7,261	9,543	22,871	21,258
Pipe & tube fittings	124,796	132,215	102,019	106,848	129,331
Total Other Steel Products	2,377,681	2,097,811	1,590,170	1,662,344	1,601,783
Total Steel Products	19,698,659	22,988,704	22,004,663	22,354,660	25,857,434
Iron Products & Ferroalloys:					
Bar iron, iron slabs and blooms, etc.	...	10	181	127	231
Cast iron tube, pipes, profiles & fittings	32,661	28,195	23,739	21,931	42,827
Malleable cast iron pipe fittings	32,806	24,067	19,310	20,965	24,293
Castings and forgings	198,654	198,082	195,622	200,631	209,302
Pig iron	488,175	700,059	354,799	294,967	338,260
Sponge iron	249,122	194,367	61,992	97,585	103,534
Ferroalloys	1,355,992	1,525,769	1,176,061	1,246,935	1,056,660
Total Iron Products & Ferroalloys	2,357,411	2,670,548	1,831,704	1,883,140	1,775,106
Grand Total	22,056,070	25,659,253	23,836,367	24,237,800	27,632,542
Iron and steel scrap	1,119,522	1,037,822	842,976	723,562	611,358

+Prior to 1988 included in Steel Mill Products. ++Prior to 1988 part of the tonnage included in Steel Mill Products.

Table 19

Imports of Iron and Steel Products

(Net Tons)

Products	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
Steel Mill Products:										
Ingots, blooms, billets, slabs, etc.	2,197,833	2,844,979	2,282,654	2,084,096	2,440,368	1,515,837	822,483	716,588	790,062	155,343
Wire rods	1,107,506	1,493,833	1,467,030	1,357,875	1,479,176	1,589,788	1,185,291	941,390	888,442	829,259
Structural shapes and pilings	1,485,716	1,959,354	1,888,019	1,855,617	2,118,518	2,155,625	1,558,275	1,598,340	2,075,508	1,828,966
Plates	1,437,123	1,733,205	1,096,424	1,106,904	1,377,921	1,538,495	1,103,199	1,619,527	2,447,688	2,059,713
Rails and accessories	157,411	268,493	245,989	275,710	382,045	373,890	159,353	340,272	318,569	414,076
Bars and toll steel	1,398,874	1,442,340	1,356,422	1,473,129	1,549,406	1,719,450	975,713	793,051	986,081	859,989
Pipe and tubing	2,473,323	3,282,669	2,770,183	2,936,811	4,463,668	5,421,713	2,862,061	5,249,948	6,568,556	3,776,535
Wire and wire products	494,308	552,780	1,040,687	1,022,026	1,055,821	1,178,715	872,187	625,303	723,975	714,874
Tin mill products	596,879	546,241	619,454	676,164	785,545	737,781	523,125	337,903	386,255	377,542
Sheets and strip	5,972,004	6,767,000	7,647,635	7,903,983	8,603,181	9,331,923	7,008,209	4,440,210	4,713,204	4,478,673
Total Steel Mill Products	17,320,978	20,890,893	20,414,493	20,692,316	24,255,651	26,163,218	17,069,895	16,662,532	19,898,340	15,494,970
Other Steel Products	2,377,681	2,097,811	1,590,170	1,662,344	1,601,783	1,510,189	1,068,782	1,025,177	1,080,715	1,016,709
Total Steel Products	19,698,659	22,988,704	22,004,663	22,354,660	25,857,434	27,673,407	18,138,677	17,687,709	20,979,055	16,511,679
Iron Products and ferroalloys	2,357,411	2,670,548	1,831,704	1,883,140	1,775,108	1,874,666	1,162,707	1,082,293	1,650,325	1,366,341
Grand Total	22,056,070	25,659,253	23,836,367	24,237,800	27,632,542	29,548,073	19,301,384	18,770,002	22,629,380	17,878,020

Table 20

Imports of Steel Mill Products

(Net Tons)

Months	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980
January	1,783,963	1,818,462	1,499,757	1,748,205	2,661,496	2,081,905	1,097,621	1,968,663	1,281,332	1,265,093
February	1,335,795	1,916,336	1,851,641	2,042,595	2,047,766	2,160,912	1,156,903	1,600,300	1,234,087	1,666,905
March	1,216,100	1,844,159	1,807,351	1,963,629	2,028,519	2,225,055	1,113,127	1,355,969	1,141,878	1,119,961
April	1,341,139	1,533,249	1,522,164	1,597,645	1,908,639	2,215,824	1,182,177	1,029,288	1,760,883	1,249,874
May	1,472,225	1,936,103	1,898,451	1,625,683	1,954,680	1,997,669	1,352,954	1,695,850	1,772,326	1,614,653
June	1,549,428	1,978,649	1,696,596	1,732,361	2,360,744	1,775,968	1,296,840	1,783,632	1,665,347	1,202,689
July	1,457,876	1,613,714	1,722,931	2,059,421	1,577,020	2,655,913	1,410,816	1,113,031	1,663,042	1,079,040
August	1,530,914	1,782,918	1,623,670	1,529,357	2,028,485	2,515,952	1,617,273	1,450,515	2,226,364	1,374,121
September	1,400,016	1,648,473	1,600,123	1,586,335	2,539,131	2,180,795	1,521,966	1,190,779	1,747,583	1,063,755
October	1,713,940	1,552,624	1,650,893	1,359,103	1,302,521	1,985,702	1,755,164	1,145,847	1,871,511	1,141,939
November	1,491,318	1,846,332	1,812,419	1,926,933	1,699,656	2,206,978	1,835,197	1,258,423	1,921,117	1,179,301
December	1,028,263	1,419,874	1,728,500	1,521,047	2,146,995	2,157,543	1,729,858	1,090,494	1,612,870	1,533,920
Total*	17,320,978	20,890,893	20,414,493	20,692,316	24,255,651	26,163,218	17,069,895	16,662,532	19,898,340	15,494,970

*Totals include adjustments not shown in monthly figures.

Table 21

Imports of Steel Mill Products by Countries of Origin

(Net Tons)

	1989			1988			1987			1986			1985		
	Net Tons	% Total	% U.S. Apparent Supply**	Net Tons	% Total	% U.S. Apparent Supply**	Net Tons	% Total	% U.S. Apparent Supply**	Net Tons	% Total	% U.S. Apparent Supply**	Net Tons	% Total	% U.S. Apparent Supply**
Canada	2,974,940	17.2	3.1	3,172,825	15.2	3.1	3,670,139	18.0	3.8	3,203,059	15.5	3.6	2,868,279	11.8	3.0
Mexico	439,517	2.5	0.5	471,209	2.3	0.5	487,361	2.4	0.5	431,394	2.1	0.5	271,794	1.1	0.3
Brazil	1,380,058	8.0	1.4	1,369,041	6.6	1.3	1,103,094	5.4	1.1	1,098,164	5.3	1.2	1,701,348	7.0	1.8
Argentina	211,094	1.2	0.2	534,406	2.6	0.5	330,906	1.6	0.3	170,259	0.8	0.2	191,094	0.8	0.2
Total Latin America	2,252,333	13.0	2.3	2,602,348	12.5	2.5	2,181,926	10.7	2.3	1,962,877	9.5	2.2	2,624,705	10.8	2.7
United Kingdom	860,688	5.0	0.9	815,296	3.9	0.8	745,241	3.7	0.8	702,957	3.4	0.8	611,546	2.5	0.6
Netherlands	468,013	2.7	0.5	554,534	2.7	0.5	491,461	2.4	0.5	498,080	2.4	0.6	577,872	2.4	0.6
Belgium-Luxembourg	733,241	4.2	0.8	852,527	4.1	0.8	762,364	3.7	0.8	985,372	4.8	1.1	1,061,421	4.4	1.1
France	1,176,423	6.8	1.2	1,243,815	6.0	1.2	1,088,406	5.3	1.1	1,205,506	5.8	1.3	1,596,266	6.6	1.7
West Germany	1,542,699	8.9	1.6	1,880,037	9.0	1.8	1,775,706	8.7	1.9	2,011,542	9.7	2.2	2,361,233	9.7	2.5
Italy	298,866	1.7	0.3	326,215	1.6	0.3	303,450	1.5	0.3	456,491	2.2	0.5	614,245	2.5	0.6
Spain	46,573	2.7	0.5	467,000	2.2	0.5	499,812	2.4	0.5	611,708	3.0	0.7	547,178	2.3	0.6
Total EEC*	5,579,472	32.2	5.8	6,226,426	29.8	6.1	5,801,787	28.4	6.0	6,613,750	32.0	7.3	6,977,433	28.8	7.2
Sweden	251,827	1.5	0.3	571,135	2.7	0.6	607,107	3.0	0.6	548,065	2.6	0.6	670,820	2.8	0.7
Finland	214,032	1.2	0.2	212,867	1.0	0.2	174,548	0.9	0.2	199,285	1.0	0.2	241,294	1.0	0.3
Austria	81,804	0.5	0.1	136,799	0.7	0.1	119,232	0.6	0.1	132,096	0.6	0.1	306,550	1.3	0.3
Turkey	201,072	1.2	0.2	284,354	1.4	0.3	407,413	2.0	0.4	...	...	...	...	...	...
Total Europe	6,647,965	38.4	6.9	8,024,561	38.4	7.8	7,626,415	37.3	8.0	8,051,876	38.9	8.9	9,765,363	40.3	10.2
Japan	3,652,850	21.1	3.8	4,290,289	20.5	4.2	4,321,042	21.2	4.5	4,422,244	21.4	4.9	5,974,508	24.6	6.2
Korea Republic	993,028	5.7	1.0	1,307,185	6.3	1.3	1,295,890	6.3	1.4	1,525,305	7.4	1.7	1,899,043	7.8	2.0
China-Taiwan	141,105	0.8	0.1	235,191	1.1	0.2	252,556	1.2	0.3	475,835	2.3	0.5	217,725	0.9	0.2
Total Asia & Africa	5,105,875	29.5	5.3	6,728,563	32.2	6.6	6,735,596	33.0	7.0	7,266,080	35.1	8.1	8,801,485	36.3	9.1
Oceania	339,865	2.0	0.4	362,597	1.7	0.3	200,417	1.0	0.2	208,423	1.0	0.2	195,819	0.8	0.2
Total Imports of Steel Mill Products	17,320,978	100.0	17.9	20,890,893	100.0	20.3	20,414,493	100.0	21.3	20,689,316	100.0	23.0	24,255,851	100.0	25.2

*Includes total for Denmark, Ireland and Greece. Starting with 1986 also includes Portugal.
**As developed in table 1A of this Report.
Country detail may not add to regional total because of omissions of some countries.

Table 22

Imports of Iron and Steel Products by Countries of Origin–1989

(Net Tons)

Products	Grand Total	Canada	Latin America				
			Mexico	Vene-zuela	Brazil	Argen-tina	Total Latin Am.
Steel Mill Products:							
Ingots, blooms, billets, slabs, etc.	2,197,833	119,775	77,159	48,482	666,888	855	793,385
Wire rods	1,107,506	400,962	32,365	2,065	58,198	15	121,846
Structural shapes (3" & over)	1,399,379	179,947	13,751	...	8,312	30,421	52,594
Steel piling	86,337	19,399	...	...	...	...	...
Plates- cut lengths	937,518	118,000	24,544	1,609	106,679	...	135,035
-in coils	499,605	149,061	2,379	8,424	28,092	233	39,130
Rails-standard	87,829	15,258	...	...	...	994	994
-all other	62,228	967	37	...	...	1,585	1,622
Railroad accessories	7,354	918	...	...	...	...	...
Bars-hot rolled	775,746	289,622	7,084	3,287	40,752	34,952	100,040
-shapes under 3"	109,611	66,534	5,902	...	1,445	3,063	10,311
-concrete reinforcing	233,735	4,876	2,646	6,584	5,339	...	20,748
-cold finished	188,642	39,315	551	520	6,997	10,367	18,453
Tool steel	91,140	9,228	146	68	2,522	375	3,110
Standard pipe	806,325	79,891	64,707	7,292	36,700	18,086	129,818
Oil country goods	429,949	8,495	36,168	39	9,266	42,251	89,111
Line pipe	526,986	54,249	26,061	10,657	5,687	25,422	67,826
Mechanical tubing	281,059	87,352	4,476	1,178	10,147	2,098	18,293
Pressure tubing	44,944	560	399	1,026	849	28	2,302
Stainless pipe & tubing	37,259	6,241	346	...	12	...	358
Nonclassified pipe & tubing	12,612	2,429	579	...	527	...	1,486
Structural pipe & tubing	323,921	217,719	5,558	...	191	1,262	7,233
Pipe for piling	10,266	768	633	...	731	463	1,826
Wire-drawn	494,308	186,135	1,412	5,906	10,246	11,277	35,105
Black Plate	144,643	7,278	...	1,455	...	...	1,455
Tin plate	337,333	53,396	...	...	1,021	...	1,021
Tin free	114,903	7,991	...	...	11	...	11
Sheets-hot rolled	1,898,494	405,442	5,977	20,265	144,105	456	170,802
-cold rolled	1,876,999	140,388	25,115	11,662	205,196	6,955	248,953
Sheets & strip-galv.-hot dipped	1,297,432	161,856	61,239	22,558	15,987	15,275	115,943
-electrolytic	327,813	16,442	35,843	4,167	...	3,532	43,676
-all other metallic coated	235,830	9,654	687	...	1,209	290	2,185
-electrical	85,329	11,644	...	...	434	...	434
Strip-hot rolled	110,538	62,696	1,707	...	1,539	841	4,087
-cold rolled	139,570	40,451	2,146	21	10,973	...	13,140
Total Steel Mill Products	17,320,978	2,974,940	439,517	157,266	1,360,056	211,094	2,252,333
Carbon	15,709,478	2,697,344	389,176	156,678	1,315,899	182,371	2,104,760
Alloy	1,259,057	227,890	34,811	587	57,914	28,616	125,673
Stainless	352,446	49,706	15,529	...	6,245	107	21,881

Country detail may not add to regional total because of omissions of some countries.

Table 22 (continued)

Imports of Iron and Steel Products by Country of Origin -1989

(Net Tons)

Products	Europe													
	European Economic Community													
	United Kingdom	Nether-lands	Belgium	Luxem-bourg	France	Fed. Rep. Germany	Italy	Spain	Total E.E.C.*	Sweden	Finland	Austria	Turkey	Total Other Europe
Steel Mill Products:														
Ingots, blooms, billets, slabs, etc.	359,528	58,729	32,382	...	159,283	299,259	21,688	13,987	944,856	71,224	34,551	...	...	117,837
Wire rods	15,061	370	6,428	10,045	117,943	8,831	3,755	47,416	209,850	5,531	108	1,196	75,596	97,213
Structural shapes (3" & over)	156,062	433	84,623	165,513	50,887	80,649	694	174,549	713,410	458	...	272	...	50,239
Steel piling	14,737	...	1,402	23,153	12,225	12,265	...	...	63,781	...	...	...	...	...
Plates- cut lengths	33,884	688	145,398	1,555	19,920	47,115	12,097	54,969	318,148	73,720	73,831	1,227	193	246,008
-in coils	5,338	26,382	11,184	523	104,824	44,776	15,681	6,663	215,370	6,895	36,800	4,822	...	58,795
Rails-standard	2,909	...	341	15,805	9,619	7,637	...	...	36,312	692	...	805	...	1,497
-all other	4,149	...	63	2,840	11	7,198	...	...	14,261	75	...	4,675	...	4,750
Railroad accessories	...	...	2	160	...	87	...	...	250	...	...	8	...	8
Bars-hot rolled	134,707	7,314	667	3,121	31,394	49,811	2,034	11,095	240,143	4,285	...	620	7	5,532
-shapes under 3"	406	150	967	2,388	105	1,748	645	...	6,451	1,324	...	51	...	1,506
-concrete reinforcing	...	...	...	...	...	81	42	...	123	4	...	...	109,126	139,365
-cold finished	26,443	30	363	222	33,418	4,543	2,350	19,435	86,811	498	4,080	70	21	6,813
Tool steel	1,601	350	177	...	5,555	10,767	11,526	137	30,113	23,935	...	2,709	...	26,980
Standard pipe	5,753	9,711	5,258	5,685	7,137	21,356	17,828	8,215	80,943	2,483	...	794	12,146	47,800
Oil country goods	2,641	...	499	...	2,526	62,769	27,945	19,759	120,793	2	1,066	16,513	...	22,823
Line pipe	11,855	225	1,147	46	37,198	92,772	46,570	463	194,580	...	2,274	441	...	3,801
Mechanical tubing	4,832	1,915	200	1,822	4,532	33,005	6,734	9,096	63,144	16,708	25	8	1,232	19,441
Pressure tubing	319	163	222	345	9,121	4,542	3,210	8,147	26,150	2,142	1	...	...	2,258
Stainless pipe & tubing	1,086	290	...	...	2,017	4,603	2,677	1,281	11,955	4,208	...	664	...	4,888
Nonclassified pipe & tubing	172	3	...	271	2	135	16	...	598	...	...	...	...	1
Structural pipe & tubing	431	22	107	...	6,732	7,833	530	1,047	16,703	90	2,634	...	2,729	5,454
Pipe for piling	23	...	...	...	...	1,032	45	...	1,101	...	...	...	...	...
Wire-drawn	26,417	1,358	54,704	4,307	39,299	17,698	3,060	480	147,360	10,094	375	1,887	...	15,942
Black Plate	246	6,881	5,966	208	4,641	2,600	...	...	24,310	...	...	...	...	...
Tin plate	548	8,603	3,452	...	24,923	52,438	...	2,061	92,024	...	...	...	...	20,393
Tin free	170	...	...	...	9,474	26,650	...	...	36,294	...	...	...	...	...
Sheets-hot rolled	9,387	222,349	30,503	993	251,390	178,648	50,300	3,000	746,661	7,684	30,312	14,963	20	64,879
-cold rolled	25,868	117,058	82,601	2,249	136,958	228,457	40,813	71,150	716,256	4,713	11,430	27,094	...	61,037
Sheets & strip-galv.-hot dipped	3,850	4,918	20,711	26	51,101	125,091	12,621	11,706	235,241	294	15,052	1,597	...	25,511
-electrolytic	2,127	2	1,117	...	22,167	57,184	241	785	83,623	121	...	...	...	121
-all other metallic coated	1,134	23	498	...	10,165	7,407	1,136	...	20,365	24	566	...	...	589
-electrical	1,429	...	107	...	1,747	9,821	9,705	...	22,809	8,206	...	...	...	8,232
Strip-hot rolled	655	...	40	...	1	9,219	3,303	...	13,218	20	...	1,058	...	1,080
-cold rolled	6,921	46	1,734	...	10,111	24,670	1,617	297	45,465	6,399	926	330	...	7,702
Total Steel Mill Products	860,688	468,013	491,963	241,278	1,176,423	1,542,699	298,866	465,738	5,579,472	251,827	214,032	81,804	201,072	1,068,493
Carbon	763,203	440,386	479,702	239,508	1,079,632	1,423,174	225,102	413,306	5,097,772	130,002	191,874	69,625	201,050	907,008
Alloy	79,089	27,258	8,690	1,770	53,968	95,278	60,886	23,743	350,706	90,068	19,018	10,909	21	124,619
Stainless	18,396	369	3,572	...	42,823	24,247	12,878	28,688	130,994	31,757	3,140	1,271	1	36,867

*Includes total for Ireland, Denmark, Greece, & Portugal

Table 22 (continued)

Imports of Iron and Steel Products by Country of Origin–1989

(Net Tons)

Products	Asia					Oceania		Africa
	Peoples Republic of China	Korea Republic	China Taiwan	Japan	Total Asia	Australia	Total Oceania	Total Africa
Steel Mill Products:								
Ingots, blooms, billets, slabs, etc.	5	66,034	...	87,186	153,227	68,747	68,747	7
Wire rods	25	513	10,071	193,347	263,695	10,783	10,783	3,158
Structural shapes (3" & over)	...	60,527	1,614	332,862	398,398	68	68	4,723
Steel piling	...	...	...	3,156	3,156	...	...	...
Plates- cut lengths	...	34,277	...	28,418	116,791	3,225	3,537	...
-in coils	...	11,843	...	18,764	30,607	1,409	6,642	...
Rails-standard	...	1,214	...	32,555	33,768	...	...	...
-all other	...	2,119	...	38,510	40,629	...	...	...
Railroad accessories	...	...	...	6,178	6,178	...	...	...
Bars-hot rolled	3,192	8,515	4,988	112,099	139,325	1,085	1,085	...
-shapes under 3"	...	5,603	5,398	13,670	24,808	...	1	...
-concrete reinforcing	...	45,352	...	97	68,624	...	...	...
-cold finished	731	6,347	1,425	26,302	36,902	348	348	...
Tool steel	167	1,167	...	20,176	21,691	18	18	...
Standard pipe	925	272,143	43,778	73,496	459,030	1,705	2,210	6,633
Oil country goods	...	8,710	2	176,718	188,507	...	...	221
Line pipe	...	27,267	2,972	153,714	193,683	3,948	3,948	8,900
Mechanical tubing	2	25,540	9,420	49,090	90,677	1,029	2,151	...
Pressure tubing	...	550	630	12,266	13,674	...	...	...
Stainless pipe & tubing	4	684	3,135	9,327	13,816	...	...	...
Nonclassified pipe & tubing	...	5,006	331	2,403	8,056	...	...	41
Structural pipe & tubing	45	8,931	3,367	39,435	75,840	340	723	249
Pipe for piling	...	5,527	219	825	6,571	...	...	...
Wire-drawn	12,165	8,272	4,648	72,721	105,555	4,189	4,192	19
Black Plate	...	...	...	109,049	111,127	474	474	...
Tin plate	...	3,529	...	152,431	155,980	14,519	14,519	...
Tin free	...	129	...	70,354	70,483	124	124	...
Sheets-hot rolled	...	207,032	286	286,473	493,926	...	16,784	...
-cold rolled	504	88,540	42,702	539,267	671,182	13,459	39,184	...
Sheets & strip-galv.-hot dipped	...	74,383	5,900	581,795	662,339	78,800	96,542	...
-electrolytic	...	7,548	...	175,843	183,391	...	562	...
-all other metallic coated	...	983	...	137,133	138,117	64,176	64,921	...
-electrical	...	929	...	41,281	42,210	...	...	...
Strip-hot rolled	...	3,169	...	26,150	29,324	131	131	...
-cold rolled	18	645	217	29,759	30,640	2,172	2,172	...
Total Steel Mill Products	17,785	993,028	141,105	3,652,850	5,081,925	270,751	339,865	23,950
Carbon	17,422	974,251	129,165	3,150,465	4,545,424	264,088	333,200	23,950
Alloy	352	4,479	7,528	409,985	423,514	6,653	6,655	...
Stainless	11	14,299	4,411	92,400	112,988	10	10	...

Table 22A

Imports of Iron and Steel Products by Countries of Origin–1989

(Net Tons)

Products	Grand Total	Canada	Latin America				
			Mexico	Vene-zuela	Brazil	Argen-tina	Total Latin Am.
Other Steel Products:							
Structural shapes, fabricated	185,421	49,659	3,793	73	2,446	72	6,407
Shapes-Cold formed	7,372	812	44	39	879	...	973
Sashes and frames	14,297	12,787	64	...	...	2	104
Rails - used	94,182	84,297	...	...	...	...	...
Railway track material	6,669	2,505	56	...	3	...	58
Wheels and axles	58,873	47,731	22	...	2,908	...	2,930
Fence or sign posts	3,566	492	65	57	16	...	138
Wire-Nonmetalic coated	9,712	6,427	...	...	240	...	240
Wire rope	117,358	6,931	2,417	...	1,097	1,878	6,297
Wire strand	195,515	10,939	291	...	4,147	14,824	19,440
Wire springs	239,495	153,414	38,798	1,844	3,545	5,430	50,362
Woven wire fabric	11,754	439	2,872	7	...	1	2,880
Grill, netting & fencing	70,258	20,077	20,336	14,976	68	1	35,957
Nails and staples	390,594	81,641	2,995	1,708	735	...	14,778
Barbed wire	12,440	69	1,930	51	5,081	...	8,868
Bale ties & baling wire	955	671	...	...	...	...	...
Industrial fasteners	752,357	126,582	6,975	194	3,871	457	11,612
Architectural & ornamental work	887	97	...	...	...	...	1
Chains & parts	73,085	5,921	223	...	1	1	265
Cast steel rolls	1,381	47	3	1	42	...	46
Grinding balls	5,607	3,053	...	...	343	...	343
Conduit	1,107	16	2	604	...	...	627
Pipe & tube fittings	124,796	4,782	8,957	3,330	4,272	1,169	17,728
Total Other Steel Products	2,377,681	619,390	89,843	22,884	29,694	23,836	180,054
Total Steel Products	19,698,659	3,594,330	529,360	180,149	1,409,752	234,930	2,432,387
Iron Products & Ferroalloys:							
Cast iron tube, pipes, profiles & fittings	32,661	3,700	2,046	2,267	452	...	4,764
Malleable cast iron pipe fittings	32,806	128	560	...	1,953	...	2,513
Castings and forgings	198,654	20,796	15,873	358	11,653	467	28,465
Pig iron	488,175	132,935	...	...	341,934	...	341,934
Sponge iron	249,122	48,297	2	183,427	60	...	183,488
Ferroalloys	1,355,992	39,028	85,198	30,231	101,114	12,385	250,583
Total Iron Products & Ferroalloys	2,357,411	244,884	103,680	216,282	457,164	12,853	811,747
Grand Total	22,056,070	3,839,214	633,040	396,431	1,866,916	247,783	3,244,134
Iron and steel scrap	1,119,522	951,064	56,863	193	65	24	60,464

Country detail may not add to regional total because of omissions of some countries.

Table 22A (continued)

Imports of Iron and Steel Products by Country of Origin –1989

(Net Tons)

Products	Europe													
	European Economic Community													Total
	United Kingdom	Nether-lands	Belgium	Luxem-bourg	France	Fed. Rep. Germany	Italy	Spain	Total E.E.C.*	Sweden	Finland	Austria	Turkey	Other Europe
Other Steel Products:														
Structural shapes, fabricated	3,114	1,251	2,038	82	247	2,085	712	346	10,201	453	2,669	215	...	6,484
Shapes-Cold formed	138	...	...	...	...	2,379	87	76	2,680	80	...	198	...	373
Sashes and frames	8	11	2	...	1	101	104	...	700	6	...	...	...	21
Rails - used	6	...	...	...	...	4	...	...	10	...	...	...	...	9,875
Railway track material	1	22	3	34	56	41	12	...	170	2	...	285	...	287
Wheels and axles	78	...	...	...	610	252	712	2	2,205	6	...	...	...	6
Fence or sign posts	72	2	2	...	2	61	5	2	163	7	...	...	...	21
Wire-Nonmetalic coated	585	49	1,556	...	72	...	711	...	2,975	...	...	...	...	...
Wire rope	1,692	926	9,334	233	5,109	3,110	4,298	1,723	27,042	58	8	...	1,118	2,646
Wire strand	2,726	555	17,585	7,165	9,046	10,705	15,408	17,605	80,810	47	...	1,262	2,014	3,401
Wire springs	682	76	21	...	186	5,404	385	3	6,772	19	3	30	...	496
Woven wire fabric	471	348	197	...	94	998	...	52	2,333	...	1	7	...	62
Grill, netting & fencing	2,018	235	561	...	125	563	145	793	4,589	3	...	31	...	77
Nails and staples	628	84	80	20	2,647	4,321	426	14,037	22,296	1,968	43	2,725	8,192	32,820
Barbed wire	...	...	53	206	...	37	...	77	372	...	...	...	...	1,655
Bale ties & baling wire	5	...	4	...	...	25	3	...	38	108	...	57	...	165
Industrial fasteners	2,136	5,922	275	1	871	8 485	16,250	484	34,851	1,525	592	390	14	13,586
Architectural & ornamental work	3	...	...	...	132	1	2	11	148	...	...	...	...	...
Chains & parts	925	126	1,272	...	714	7,488	4,396	681	15,699	408	195	688	108	5,513
Cast steel rolls	185	...	11	...	84	102	70	26	479	...	...	40	...	40
Grinding balls	1	1	1	...	4	248	1,024	440	1,720	5	...	...	...	5
Conduit	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Pipe & tube fittings	3,827	198	50	...	6,438	8,560	10,358	355	29,862	36	2	612	...	2,876
Total Other Steel Products	19,300	9,807	33,045	7,742	26,438	54,969	55,108	36,712	246,115	4,730	3,513	6,538	11,447	80,410
Total Steel Products	879,988	477,820	525,008	249,020	1,202,861	1,597,668	353,974	502,450	5,825,587	256,557	217,545	88,342	212,519	1,148,903
Iron Products & Ferroalloys:														
Cast iron tube, pipes, profiles & fittings	32	...	...	...	9	33	181	253	509	1	...	...	...	6
Malleable cast iron pipe fittings	745	2	9	...	144	318	73	...	1,531	...	...	...	...	81
Castings and forgings	3,226	326	76	...	3,442	5,465	21,020	1,086	35,243	39	4	35	...	1,562
Pig iron	...	...	166	...	...	...	...	...	166	...	...	...	...	6,312
Sponge iron	423	26	270	...	100	5,648	56	...	6,525	407	...	61	...	589
Ferroalloys	2,297	813	5,807	...	152,333	29,902	7,216	4,431	203,624	13,951	1,126	172	43,694	222,210
Total Iron Products & Ferroalloys	6,723	1,166	6,327	...	156,027	41,367	28,545	5,770	247,598	14,398	1,131	268	43,694	230,759
Grand Total	886,711	478,986	531,335	249,020	1,358,888	1,639,035	382,519	508,220	6,073,185	270,955	218,676	88,610	256,213	1,379,662
Iron and steel scrap	357	3,573	...	...	29,508	3,747	2	22	37,209	90	...	18	...	123

*Includes total for Ireland, Denmark, Greece, & Portugal

Table 22A (continued)

Imports of Iron and Steel Products by Country of Origin–1989

(Net Tons)

Products	Asia					Oceania		Africa
	Peoples Republic of China	Korea Republic	China Taiwan	Japan	Total Asia	Australia	Total Oceania	Total Africa
Other Steel Products:								
Structural shapes, fabricated	790	50,513	2,993	37,480	103,482	243	9,189	...
Shapes-Cold formed	84	...	2,292	137	2,523	...	...	10
Sashes and frames	243	63	160	32	679	6	6	...
Rails - used	...	...	...	...	...	...	...	...
Railway track material	...	10	75	...	85	3,564	3,564	...
Wheels and axles	43	...	62	5,855	5,979	2	2	20
Fence or sign posts	59	261	404	7	1,018	...	...	1,735
Wire-Nonmetalic coated	...	...	65	5	70	...	...	...
Wire rope	2,594	45,083	3,746	15,853	74,393	...	1	48
Wire strand	1,061	28,788	4,045	40,917	80,018	...	47	859
Wire springs	4,654	2,102	910	15,017	26,903	17	26	1,524
Woven wire fabric	969	495	720	3,668	5,955	...	85	...
Grill, netting & fencing	7,291	1,115	330	382	9,263	16	288	6
Nails and staples	32,289	108,092	9,484	13,644	237,910	20	127	1,022
Barbed wire	159	897	17	...	1,322	...	80	74
Bale ties & baling wire	...	2	78	1	81	...	...	...
Industrial fasteners	68,667	52,810	287,100	142,039	564,962	555	555	209
Architectural & ornamental work	13	1	554	...	627	...	14	...
Chains & parts	11,167	2,906	14,977	14,435	45,629	19	22	36
Cast steel rolls	6	167	...	562	750	20	20	...
Grinding balls	...	5	39	437	487	...	...	...
Conduit	...	402	22	7	464	...	...	...
Pipe & tube fittings	28,022	7,599	7,407	8,338	69,459	87	88	...
Total Other Steel Products	158,110	301,310	335,478	298,816	1,232,058	4,550	14,112	5,541
Total Steel Products	175,895	1,294,338	476,583	395,166	6,313,983	275,301	353,977	29,491
Iron Products & Ferroalloys:								
Cast iron tube, pipes, profiles & fittings	12,223	1,028	8,263	15	23,682	...	...	...
Malleable cast iron pipe fittings	6,356	3,440	1,304	3,139	28,525	2	28	...
Castings and forgings	28,849	5,756	9,611	2,432	112,575	10	10	3
Pig iron	...	75	...	6,657	6,732	...	...	96
Sponge iron	...	...	1	9,068	9,224	1,000	1,000	...
Ferroalloys	43,628	...	1,358	7,236	79,709	70,536	85,086	475,754
Total Iron Products & Ferroalloys	91,057	10,299	20,538	28,547	260,445	71,548	86,124	475,854
Grand Total	266,952	1,304,637	497,121	423,713	6,574,428	346,849	440,101	505,345
Iron and steel scrap	137	4,276	131	65,794	70,365	...	273	24

Table 23

Imports of Iron and Steel Products by Customs District–1989

(Net Tons)

Products	Grand Total	ATLANTIC COAST											
		Boston	Provi-dence	New York City	Phila-delphia	Baltimore Wash.,DC	Norfolk	Wil-mington	Charles-ton	Savannah	Tampa	Miami	Total
Steel Mill Products:													
Ingots, blooms, billets, slabs, etc.	2,197,833	3,622	...	255,227	57,646	13,769	5,727	3	1,332	745	...	...	338,071
Wire rods	1,107,506	14,293	2,343	9,949	43,236	9,510	1,088	3,099	8,780	46,713	49,873	763	189,647
Structural shapes (3" & over)	1,399,379	170,542	2,488	15,838	49,188	26,392	899	38,631	744	63,611	34,577	4,991	407,901
Steel piling	86,337	3,574	3,191	1,242	7	2,766	...	...	...	3,657	1,833	1,958	18,228
Plates- cut lengths	937,518	42,595	1,701	7,647	24,935	9,930	850	10,528	2,382	31,563	15,678	1,551	149,360
-in coils	499,605	7,613	229	3,958	31,269	2,008	1,171	10,713	5,193	2,823	10,635	477	76,089
Rails-standard	87,829	433	466	1,245	1,976	817	...	...	...	271	6,127	...	11,335
-all other	62,228	60	...	...	3,851	8	...	...	...	552	3,364	...	7,835
Railroad accessories	7,354	...	...	...	55	...	...	...	...	...	4	...	59
Bars-hot rolled	775,746	5,145	460	8,025	20,723	17,922	278	7,857	2,718	11,669	6,004	246	81,047
-shapes under 3"	109,611	820	31	772	3,851	1,033	158	157	175	1,809	770	...	9,576
-concrete reinforcing	233,735	...	...	22	8,683	...	...	...	...	42	6,657	22,671	38,075
-cold finished	188,642	2,258	562	12,205	14,373	7,555	3,157	3,938	786	3,060	434	530	48,858
Tool steel	91,140	8,793	1,261	12,699	3,374	16,064	1,661	251	7,348	13,033	98	82	64,664
Standard pipe	806,325	13,748	556	1,254	53,480	3,889	2,258	14,085	7,092	21,880	16,571	3,279	138,092
Oil country goods	429,949	...	...	36	113	245	...	...	...	73	39	...	506
Line pipe	526,988	...	226	7	36,575	...	1,445	455	207	1,795	55,107	...	95,817
Mechanical tubing	281,059	3,692	178	4,169	18,115	13,332	737	2,215	6,093	6,601	3,790	812	59,734
Pressure tubing	44,944	1,016	180	314	10,709	842	...	...	655	2,311	2,691	963	19,681
Stainless pipe & tubing	37,259	9	...	4,258	4,863	4,396	...	...	342	286	314	...	14,468
Nonclassified pipe & tubing	12,612	1	...	142	385	...	135	284	116	271	651	...	1,985
Structural pipe & tubing	323,921	303	...	299	2,218	...	...	292	1,221	1,647	16,788	...	22,768
Pipe for piling	10,266	71	...	...	766	16	...	...	...	54	1,120	...	2,027
Wire-drawn	494,308	3,220	212	26,595	5,467	16,843	4,532	8,136	22,964	4,469	2,628	4,793	99,859
Black Plate	144,643	17,167	1,140	7,302	16,622	1,000	17	58	...	2,314	...	...	45,620
Tin plate	337,333	11,438	4,120	687	19,279	5,111	...	3,254	...	4,698	7,557	...	56,144
Tin free	114,903	...	51	15	6,504	963	...	203	...	195	1,333	...	9,264
Sheets-hot rolled	1,898,494	78,257	7,592	5,687	97,578	6,340	4,536	50,514	17,721	11,587	25,338	3,811	308,961
-cold rolled	1,876,999	94,202	16,142	27,782	172,172	19,101	10,291	10,145	5,180	31,202	6,122	5,314	397,653
Sheets & strip-galv.-hot dipped	1,297,431	11,932	4,746	15,275	109,525	7,055	36,021	7,550	2,239	41,468	51,887	9,880	297,578
-electrolytic	327,813	1,257	...	895	17,983	4,475	36,885	484	199	1,358	11,950	6,911	82,397
-all other metallic coated	235,830	583	284	1,618	27,013	2,655	3,605	403	1,302	9,846	5,326	...	52,635
-electrical	85,329	8,263	...	31	1,643	4,398	61	...	600	9,510	...	...	24,506
Strip-hot rolled	110,538	14,124	234	99	1,692	1,205	89	2,783	38	4,558	43	3	24,868
-cold rolled	139,570	5,697	750	18,434	8,707	1,445	603	785	5,703	5,220	72	10	47,426
Total Steel Mill Products	17,320,978	524,728	49,145	443,729	874,576	201,085	116,202	176,820	101,130	340,889	345,381	69,044	3,242,729
Carbon	15,709,477	486,507	42,070	363,383	787,319	117,489	100,509	169,478	77,530	286,710	341,212	68,834	2,841,041
Alloy	1,259,056	32,652	2,214	46,027	46,752	50,894	13,821	6,469	19,917	39,814	3,767	114	262,441
Stainless	352,445	5,568	4,861	34,319	40,504	32,701	1,872	873	3,683	14,365	402	96	139,244

Table 23 (continued)

Imports of Iron and Steel Products by Customs District–1989

(Net Tons)

Products	GULF COAST–MEXICAN BORDER							
	Mobile	New Orleans	Port Arthur	Houston	Dallas	Laredo	El Paso Nogales	Total
Steel Mill Products:								
Ingots, blooms, billets, slabs, etc.	414,375	218,150	35,907	17,865	...	8,460	1	694,758
Wire rods	33,051	87,652	...	94,374	3,162	3,148	...	221,387
Structural shapes (3" & over)	34,932	83,320	...	149,837	10	9,983	...	278,082
Steel piling	5,057	886	...	18,814	...	...	...	24,757
Plates- cut lengths	24,230	111,769	...	184,840	374	24,544	...	345,757
-in coils	2,588	24,830	...	67,500	90	2,379	...	97,387
Rails-standard	19,592	3,835	...	5,908	...	...	...	29,335
-all other	25,599	12,877	...	3,305	...	37	...	41,818
Railroad accessories	6,183	...	...	12	...	...	...	6,195
Bars-hot rolled	1,894	82,385	...	33,264	3	1,541	...	119,087
-shapes under 3"	1,719	3,114	...	2,898	...	1	1	7,733
-concrete reinforcing	...	625	...	1,029	2	2,646	...	4,302
-cold finished	1,619	11,619	...	20,384	22	490	...	34,134
Tool steel	152	1,675	...	212	...	146	...	2,185
Standard pipe	640	45,665	720	145,855	...	63,137	48	256,065
Oil country goods	...	19,512	...	351,157	...	137	...	370,806
Line pipe	15,049	80,542	...	190,531	...	20,961	963	308,046
Mechanical tubing	2,007	19,537	...	42,178	640	3,750	49	68,161
Pressure tubing	50	6,975	...	14,444	...	354	2	21,825
Stainless pipe & tubing	519	829	...	9,385	44	346	...	11,123
Nonclassified pipe & tubing	271	664	...	3,245	...	579	...	4,759
Structural pipe & tubing	718	6,831	...	22,216	...	5,419	3	35,187
Pipe for piling	...	3,746	...	2,153	...	633	...	6,532
Wire-drawn	2,099	35,890	...	23,084	302	1,341	106	62,822
Black Plate	796	20,916	...	1,726	...	...	...	23,438
Tin plate	10,846	34,601	...	22,033	1,787	...	...	69,267
Tin free	2,092	6,036	...	8,530	1,180	...	...	17,838
Sheets-hot rolled	7,252	168,294	...	188,560	654	5,977	...	370,737
-cold rolled	1,753	240,803	...	127,162	...	24,898	...	394,616
Sheets & strip-galv.-hot dipped	2,026	110,924	...	106,841	1,123	59,015	2,230	282,159
-electrolytic	499	32,708	...	8,909	...	35,843	...	77,959
-all other metallic coated	2,046	50,255	...	10,720	...	666	42	63,729
-electrical	...	27,412	...	2,707	...	...	...	30,119
Strip-hot rolled	2,205	9,938	...	1,383	...	1,707	...	15,233
-cold rolled	194	6,123	...	6,170	...	2,037	14	14,538
Total Steel Mill Products	622,049	1,570,942	36,627	1,889,230	9,391	280,175	3,460	4,411,874
Carbon	605,452	1,390,348	36,627	1,601,882	8,591	258,652	3,443	3,904,995
Alloy	3,452	164,244	...	261,906	754	6,190	...	439,546
Stainless	10,145	16,349	...	25,442	47	15,333	17	67,333

Table 23 (continued)

Imports of Iron and Steel Products by Customs District-1989

(Net Tons)

Products	PACIFIC COAST						OFF SHORE				
	San Diego	Los Angeles	San Francisco	Columbia Snake	Seattle	Total	Virgin Islands	Anch-orage	Hono-lulu	San Juan	Total
Steel Mill Products:											
Ingots, blooms, billets, slabs, etc.	8	687,195	23	47,092	94	734,412	...	...	...	...	...
Wire rods	...	163,423	32,578	...	27,867	223,868	...	...	...	5,174	5,174
Structural shapes (3" & over)	3,633	217,111	109,113	54,200	12,391	396,448	37	6	126	18,396	18,565
Steel piling	...	2,634	1,968	3,648	2,088	10,338	180	2,686	...	787	3,653
Plates- cut lengths	...	97,940	10,581	17,502	13,571	139,594	...	9	572	6,546	7,127
-in coils	...	31,963	4,591	17,771	12,953	67,278	...	...	727	131	858
Rails-standard	...	28	62	25,315	57	25,462	...	...	...	...	...
-all other	...	563	1,060	5,428	754	7,805	...	...	...	...	...
Railroad accessories	...	...	...	127	2	129	...	14	...	...	14
Bars-hot rolled	5,416	36,141	2,895	1,586	2,554	48,592	150	...	...	16,086	16,236
-shapes under 3"	5,799	13,881	2,284	660	756	23,380	...	42	62	543	647
-concrete reinforcing	...	26,046	7,894	1,107	1,371	36,418	3,522	...	6,602	140,599	150,723
-cold finished	1	22,630	1,879	5,079	2,531	32,120	540	1	...	1,783	2,324
Tool steel	...	2,060	10	984	381	3,435	...	...	...	295	295
Standard pipe	413	198,000	42,129	32,357	33,942	306,841	...	281	2,286	9,844	12,411
Oil country goods	1	13,398	995	5	962	15,361	...	30,670	327	134	31,131
Line pipe	...	47,541	2,611	1,004	3,580	54,736	...	7,943	...	2,994	10,937
Mechanical tubing	486	15,757	6,328	11,127	6,133	39,831	...	6	223	6,235	6,464
Pressure tubing	44	1,655	...	...	182	1,881	...	...	12	104	116
Stainless pipe & tubing	...	3,072	125	552	710	4,459	...	...		18	18
Nonclassified pipe & tubing	...	1,613	1	257	1,345	3,216	...	1	...	413	414
Structural pipe & tubing	136	22,562	6,333	10,472	5,365	44,868	...	10	496	1,608	2,114
Pipe for piling	...	30	...	185	74	289	...	...	...	628	628
Wire-drawn	38	30,628	4,410	1,681	46,502	83,259	...	...	2,230	9,988	12,218
Black Plate	...	14,357	7,444	...	197	21,998	...	...	...	...	...
Tin plate	...	29,951	63,084	...	...	93,035	...	...	...	17,615	17,615
Tin free	...	30,745	21,669	...	...	52,414	...	...	...	20,270	20,270
Sheets-hot rolled	...	212,356	142,765	38,168	9,663	402,952	...	...	...	3,525	3,525
-cold rolled	31	295,938	105,965	9,726	7,893	419,553	...	...	36	5,631	5,667
Sheets & strip-galv.-hot dipped	42	181,461	128,163	32,847	38,643	381,156	3	...	2,625	15,706	18,334
-electrolytic	...	36,825	1,832	10,988	1,018	50,663	...	...	38	3,892	3,930
-all other metallic coated	...	47,433	17,808	4,989	11,138	81,368	...	...	2,396	3,055	5,451
-electrical	...	5,315	4,795	...	29	10,139	...	...	...	...	...
Strip-hot rolled	...	3,758	376	397	129	4,660	...	...	...	...	...
-cold rolled	94	4,720	4,612	2,475	1,103	13,004	...	...	1	2,546	2,547
Total Steel Mill Products	16,141	2,498,730	736,383	337,728	245,981	3,834,963	4,432	41,670	18,759	294,545	359,406
Carbon	16,139	2,396,951	721,503	325,902	230,725	3,691,220	3,741	19,887	18,678	288,911	331,217
Alloy	2	60,407	11,349	10,046	11,146	92,950	691	21,780	44	4,691	27,206
Stainless	...	41,372	3,532	1,780	4,110	50,794	...	2	37	943	982

Table 23 (continued)

Imports of Iron and Steel Products by Customs District–1989

(Net Tons)

Products	GREAT LAKES–CANADIAN BORDER												
	Port-land	St. Albans	Ogdens-burg	Buffalo	Great Falls	Pem-bina	Duluth Mpls.	Mil-waukee	Detroit	Chicago	Cleveland	St. Louis	Total
Steel Mill Products:													
Ingots, blooms, billets, slabs, etc.	...	8,355	1,020	84,693	...	...	...	6,428	56,844	102,603	170,628	18	430,589
Wire rods	22	9,345	71,504	162,509	...	...	...	1,989	178,441	9,246	33,227	1,148	467,431
Structural shapes (3" & over)	273	13,735	10,773	67,308	86	53,330	157	17,317	64,267	34,738	36,400	3	298,387
Steel piling	...	1,444	4,695	670	24	...	...	...	12,201	10,329	...	...	29,363
Plates- cut lengths	10	4,691	4,637	35,470	23	10,107	2,407	16,932	123,465	56,389	39,923	1,627	295,681
-in coils	2	1,497	59	17,640	1,679	52,042	18,431	746	66,544	72,416	26,798	139	257,993
Rails-standard	103	844	365	2,658	...	67	...	...	11,668	3,973	2,016	...	21,694
-all other	128	32	20	527	...	...	...	...	613	3,071	380	...	4,771
Railroad accessories	840	3	58	...	...	...	...	...	1	53	1	...	956
Bars-hot rolled	...	6,948	12,024	91,185	883	2,928	...	300	273,293	37,988	80,608	4,629	510,786
-shapes under 3"	23	3,079	2,604	35,681	19	3,592	...	152	21,749	1,122	255	...	68,276
-concrete reinforcing	124	1,998	262	976	...	...	...	...	809	46	...	...	4,215
-cold finished	51	1,321	1,483	23,872	17	...	282	249	17,592	21,109	5,230	...	71,206
Tool steel	...	1,147	26	2,839	...	...	19	...	9,464	6,003	1,064	...	20,562
Standard pipe	86	16,373	11,136	20,138	19	202	658	31	31,221	6,237	6,646	169	92,916
Oil country goods	29	...	16	7,733	671	2	...	...	3,689	6	...	...	12,146
Line pipe	51	...	6	42,554	5,035	900	180	...	5,539	2,595	221	372	57,453
Mechanical tubing	140	3,003	6,318	24,480	87	86	479	34	61,841	5,946	4,361	95	106,870
Pressure tubing	21	...	61	407	22	...	...	...	539	180	113	...	1,443
Stainless pipe & tubing	50	263	1,395	1,198	...	...	...	27	3,641	552	47	18	7,191
Nonclassified pipe & tubing	118	45	192	645	131	22	277	...	734	67	8	...	2,239
Structural pipe & tubing	181	7,395	12,772	53,987	2,584	1,727	36	...	139,637	601	63	...	218,983
Pipe for piling	93	...	9	414	22	22	...	...	209	23	...	...	792
Wire-drawn	9,582	29,383	41,086	48,655	1	24	1,113	1,497	56,875	42,676	2,995	2,264	236,151
Black Plate	217	...	14	1,919	...	...	...	...	15,337	8,132	27,966	...	53,585
Tin plate	...	...	255	29,800	...	...	...	...	23,176	36,915	11,126	...	101,272
Tin free	...	...	22	5,292	...	...	...	...	4,225	2,902	2,677	...	15,118
Sheets-hot rolled	10,774	4,075	4,246	83,223	1,052	26,631	24,355	7,689	330,696	159,366	158,250	1,962	812,319
-cold rolled	4,749	19,729	4,791	71,211	37	423	7,287	7,898	227,593	265,197	48,863	1,733	659,511
Sheets & strip-galv.-hot dipped	330	275	282	55,059	...	82	1	...	204,988	33,857	22,931	401	318,206
-electrolytic	75	6	34	4,481	...	7	...	...	76,022	18,193	14,024	23	112,865
-all other metallic coated	3	348	1,968	8,237	2	...	...	...	8,735	4,591	8,752	11	32,647
-electrical	...	...	21	2,854	...	...	...	...	9,309	6,099	2,280	...	20,563
Strip-hot rolled	...	1,649	495	15,540	45	8,183	...	...	37,763	1,060	1,045	...	65,780
-cold rolled	...	150	2,782	17,569	2	...	23	22	28,936	9,386	3,093	88	62,051
Total Steel Mill Products	28,075	137,132	197,433	1,021,421	12,441	160,377	55,706	61,312	2,107,753	963,665	711,990	14,701	5,472,006
Carbon	27,991	135,206	188,059	930,396	11,327	129,495	53,531	40,704	1,913,440	866,825	630,814	13,218	4,941,006
Alloy	34	1,583	4,994	53,509	1,060	30,804	2,162	20,521	176,091	65,773	79,042	1,338	436,911
Stainless	50	344	4,381	37,516	54	78	14	86	18,222	31,067	2,134	145	94,091

Table 23A

Imports of Iron and Steel Products by Customs District–1989

(Net Tons)

Products	Grand Total	ATLANTIC COAST											
		Boston	Providence	New York City	Philadelphia	Baltimore Wash.,DC	Norfolk	Wilmington	Charleston	Savannah	Tampa	Miami	Total
Other Steel Products:													
Structural shapes, fabricated	18,421	2,887	...	2,446	915	1,496	295	3,884	898	10,406	6,078	1,084	30,389
Shapes-Cold formed	7,372	955	...	138	32	98	51	20	136	40	113	38	1,621
Sashes and frames	14,297	20	...	567	2	5	78	...	394	86	2	7	1,161
Rails - used	94,180	...	...	1	9,875	...	...	...	...	...	...	...	9,876
Railway track material	6,669	...	...	89	...	99	...	...	...	3	...	...	191
Wheels and axles+	58,873	6	...	1,405	652	300	407	...	20	493	3	30	3,316
Fence or sign posts	3,566	168	...	41	23	14	25	...	2	1,764	14	64	2,115
Wire-Nonmetalic coated	9,712	79	...	568	170	518	353	...	...	...	5	157	1,850
Wire rope	117,358	3,186	156	10,824	1,218	6,179	3,316	439	9,862	3,554	2,657	976	42,367
Wire strand	195,515	1,723	...	14,630	3,950	5,147	10,891	4,687	16,055	17,060	5,624	8,766	88,533
Wire springs	239,495	69	2	410	13,484	2,057	3,350	81	1,998	362	220	2,866	24,899
Woven wire fabric	11,754	41	...	2,397	564	103	25	2	101	15	2	307	3,557
Grill, netting & fencing	20,258	125	21	5,412	48	480	474	6	277	608	512	14,625	22,588
Nails and staples	390,594	7,361	2,362	19,828	25,929	9,899	2,909	16,011	8,537	16,340	10,480	8,890	128,546
Barbed wire	12,440	21	...	332	70	811	63	581	233	217	81	324	2,733
Bale ties & baling wire	955	7	...	169	...	13	...	1	3	8	...	...	201
Industrial fasteners	752,357	8,262	2,805	66,400	23,878	25,326	7,829	6,649	5,595	21,868	7,130	4,315	180,057
Architectural & ornamental work	887	...	...	3	...	35	...	...	...	...	...	21	59
Chains & parts	73,085	1,082	...	7,371	1,368	1,609	1,288	37	2,175	1,480	207	538	17,155
Cast steel rolls	1,381	...	...	40	106	207	66	8	24	30	...	...	481
Grinding balls	5,607	...	...	51	77	317	...	...	1	129	...	...	575
Conduit	1,107	...	...	47	...	...	...	...	12	6	2	...	67
Pipe & tube fittings	124,796	407	...	8,045	1,707	3,011	759	308	332	2,725	5,147	310	22,751
Total Other Steel Products	2,377,681	26,400	5,347	141,213	84,068	57,722	32,181	32,712	46,656	77,194	38,276	43,318	585,087
Total Steel Products	19,698,659	551,128	54,492	584,942	958,644	258,807	148,383	209,532	147,786	418,083	383,657	112,362	3,827,816
Iron Products & Ferroalloys:													
Cast iron tube, pipes, profiles & fitting	32,661	428	...	4,130	676	284	738	...	1,359	1,091	260	16	8,982
Malleable cast iron pipe fittings	32,806	803	...	1,724	1,213	606	394	...	163	1,312	1,669	182	8,066
Castings and forgings	198,654	8,502	11	33,199	7,738	8,349	8,801	3,210	944	8,320	1,109	2,482	82,665
Pig iron	488,175	9,645	...	...	6,451	28,613	4,082	...	...	3,463	...	...	52,254
Sponge iron	249,122	200	...	5,634	7,207	37,174	8	25	130	287	...	1	50,666
Ferroalloys	1,355,992	2,775	...	4,873	38,809	161,479	337	37	594	2,003	13,486	...	224,393
Total Iron Products & Ferroalloys	2,357,411	22,352	11	49,560	62,094	236,506	14,360	3,273	3,190	16,476	16,523	2,681	427,026
Grand Total	22,056,070	573,480	54,503	634,502	1,020,738	495,313	162,743	212,805	150,976	434,559	400,180	115,043	4,254,842
Iron and steel scrap	1,119,522	196	...	30,587	22	27,722	...	11	...	37	182	1,058	59,815

Table 23A (continued)

Imports of Iron and Steel Products by Customs District–1989

(Net Tons)

Products	GULF COAST–MEXICAN BORDER							
	Mobile	New Orleans	Port Arthur	Houston	Dallas	Laredo	El Paso Nogales	Total
Other Steel Products:								
Structural shapes, fabricated	9,594	673	...	46,432	42	783	434	57,958
Shapes–Cold formed	...	428	...	536	4	44	...	1,012
Sashes and frames	...	3	...	2	...	29	...	34
Rails - used	...	...	...	...	...	...	...	0
Railway track material	143	7	...	38	...	56	...	244
Wheels and axles+	369	39	...	1,568	...	17	141	2,134
Fence or sign posts	...	80	...	85	17	38	...	220
Wire–Nonmetalic coated	...	22	...	1	22	...	...	45
Wire rope	1,424	20,649	...	17,594	22	1,698	...	41,387
Wire strand	1,155	13,290	...	35,483	2,049	327	...	52,304
Wire springs	109	5,473	...	1,017	3,033	35,204	35	44,871
Woven wire fabric	...	93	...	2,281	23	703	1,819	4,919
Grill, netting & fencing	9	179	...	122	2	18,159	1,073	19,544
Nails and staples	183	21,568	...	19,331	92	1,995	44	43,213
Barbed wire	104	3,682	...	1,707	...	1,320	413	7,226
Bale ties & baling wire	...	24	...	...	...	3	...	27
Industrial fasteners	6,531	14,636	...	29,470	2,206	6,132	470	59,445
Architectural & ornamental work	698	1	...	1	...	...	...	700
Chains & parts	228	3,819	...	2,021	843	241	215	7,367
Cast steel rolls	...	68	...	377	4	3	...	452
Grinding balls	271	...	...	...	...	...	...	271
Conduit	338	...	...	...	...	...	...	338
Pipe & tube fittings	2,232	10,260	...	39,795	40	5,914	107	58,348
Total Other Steel Products	23,388	94,995	...	197,861	8,399	72,666	4,751	402,060
Total Steel Products	645,437	1,665,937	36,627	2,087,091	17,790	352,841	8,211	4,813,934
Iron Products & Ferroalloys:								
Cast iron tube, pipes, profiles & fitting	40	391	...	892	72	1,535	539	3,469
Malleable cast iron pipe fittings	71	551	...	3,633	675	560	...	5,490
Castings and forgings	2,296	7,292	...	25,520	677	9,233	1,539	46,557
Pig iron	...	342,108	...	...	...	171	...	342,279
Sponge iron	...	110,522	...	7	...	...	10	110,539
Ferroalloys	41,195	893,675	...	8,626	...	774	...	944,270
Total Iron Products & Ferroalloys	43,603	1,354,540	...	38,678	1,424	12,273	2,088	1,452,606
Grand Total	689,040	3,020,477	36,627	2,125,769	19,214	365,114	10,299	6,266,540
Iron and steel scrap	22	14,741	...	2,224	...	22,384	15,995	55,366

Table 23A (continued)

Imports of Iron and Steel Products by Customs District–1989

(Net Tons)

Products	PACIFIC COAST						OFF SHORE				
	San Diego	Los Angeles	San Francisco	Columbia Snake	Seattle	Total	Virgin Islands	Anch-orage	Hono-lulu	San Juan	Total
Other Steel Products:											
Structural shapes, fabricated	2,976	27,143	3,599	5,711	5,750	45,179	3	3,432	1,674	909	6,018
Shapes-Cold formed	...	2,040	296	17	294	2,647	...	...	...	34	34
Sashes and frames	36	79	77	3	5,287	5,482	...	...	17	...	17
Rails - used	...	...	...	...	1,174	1,174	...	22	...	...	22
Railway track material	...	46	947	3	3,686	4,682	...	20	...	...	20
Wheels and axles+	...	6	310	2,614	957	3,887	...	183	...	...	183
Fence or sign posts	27	244	178	...	232	681	...	...	...	2	2
Wire-Nonmetalic coated	...	50	119	...	166	335	...	...	...	926	926
Wire rope	709	4,947	3,075	4,633	10,823	24,187	...	...	66	21	87
Wire strand	3	12,219	7,110	2,167	13,153	34,652	...	...	34	1,302	1,336
Wire springs	164	2,550	988	1,972	4,925	10,599	...	5	...	596	601
Woven wire fabric	271	893	280	37	5	1,486	7	...	...	206	213
Grill, netting & fencing	772	3,094	677	140	5,214	9,897	49	...	240	1,969	2,258
Nails and staples	862	75,135	33,638	1,115	36,487	147,237	...	2	199	1,214	1,415
Barbed wire	...	507	466	144	59	1,176	...	...	97	1,186	1,283
Bale ties & baling wire	...	1	...	...	6	7	...	...	...	1	1
Industrial fasteners	1,198	155,735	25,204	12,470	30,611	225,218	...	1	188	803	992
Architectural & ornamental work	...	2	...	...	...	2	...	...	33	11	44
Chains & parts	29	7,155	1,542	8,838	11,531	29,095	...	1	58	274	333
Cast steel rolls	...	29	34	...	207	270	...	...	...	...	0
Grinding balls	...	435	...	1	...	436	...	...	...	...	0
Conduit	2	59	...	...	1	62	...	...	...	625	625
Pipe & tube fittings	2,704	10,966	1,069	3,020	1,726	19,485	...	17	38	274	329
Total Other Steel Products	9,753	303,336	79,608	42,883	132,294	567,874	59	3,683	2,645	10,353	16,740
Total Steel Products	25,894	2,802,066	815,991	380,611	378,275	4,402,837	4,491	45,353	21,404	304,898	376,146
Iron Products & Ferroalloys:											
Cast iron tube, pipes, profiles & fitting	892	13,527	852	239	320	15,830	...	...	5	7	12
Malleable cast iron pipe fittings	39	13,111	1,546	176	294	15,166	...	...	...	40	40
Castings and forgings	6,894	10,337	9,957	588	9,942	37,718	...	...	6	902	908
Pig iron	...	76	...	...	4,803	4,879	...	...	...	...	0
Sponge iron	...	308	1,016	...	1,475	2,799	...	32	...	...	32
Ferroalloys	16,804	10,115	4,137	29,610	2,363	63,029	...	...	...	...	...
Total Iron Products & Ferroalloys	24,628	47,474	17,510	30,614	19,197	139,423	...	32	11	949	992
Grand Total	50,522	2,849,540	833,501	411,225	397,472	4,542,260	4,491	45,385	21,415	305,847	377,138
Iron and steel scrap	19,180	3,720	24	...	383,364	406,288	...	...	2,586	...	2,586

Table 23A (continued)

Imports of Iron and Steel Products by Customs District–1989

(Net Tons)

Products	GREAT LAKES–CANADIAN BORDER												
	Port-land	St. Albans	Ogdens-burg	Buffalo	Great Falls	Pem-bina	Duluth Mpls.	Mil-waukee	Detroit	Chicago	Cleveland	St. Louis	Total
Other Steel Products:													
Structural shapes, fabricated	12,949	4,526	4,564	12,002	1,037	274	70	270	9,048	575	467	99	45,881
Shapes-Cold formed	...	118	303	79	...	...	...	405	231	731	191	...	2,058
Sashes and frames	7	538	357	4,770	35	47	68	2	1,731	32	1	15	7,603
Rails - used	38	195	6,187	43,812	4	8,879	12,280	...	11,708	5	...	...	83,108
Railway track material	4	21	212	352	...	202	...	...	669	9	65	...	1,534
Wheels and axles+	253	602	3,007	1,514	...	14,927	12,465	30	14,633	1,008	917	...	49,356
Fence or sign posts	19	46	229	23	126	...	2	...	58	42	1	...	546
Wire-Nonmetalic coated	112	3	2,760	1,600	...	...	12	...	1,978	89	...	2	6,556
Wire rope	116	457	1,581	348	15	41	70	...	1,648	4,097	245	710	9,328
Wire strand	2,169	22	441	1,093	...	3	868	141	2,125	10,573	648	608	18,691
Wire springs	17	455	1,526	5,667	3,602	2,904	68	78	139,970	1,581	2,095	563	158,526
Woven wire fabric	2	...	2	315	3	3	2	...	326	112	663	152	1,580
Grill, netting & fencing	13	3,558	1,610	6,018	19	...	195	...	3,998	91	464	4	15,970
Nails and staples	1,925	8,110	14,107	9,601	40	33	529	196	16,086	18,208	1,303	46	70,184
Barbed wire	...	...	...	...	...	...	...	...	22	...	...	...	22
Bale ties & baling wire	...	...	1	376	...	...	...	...	294	47	1	...	719
Industrial fasteners	1,031	1,283	29,977	19,517	500	268	2,867	1,505	91,982	108,739	24,061	4,914	286,644
Architectural & ornamental work	6	...	20	15	...	...	...	...	40	...	...	...	81
Chains & parts	74	680	2,232	1,263	412	45	385	998	677	9,992	1,926	450	19,134
Cast steel rolls	...	...	...	44	...	...	48	...	34	48	4	1	179
Grinding balls	...	22	49	3,098	...	...	...	...	939	154	62		4,324
Conduit	...	...	...	8	...	...	...	...	7	...	...	...	15
Pipe & tube fittings	20	343	1,664	912	574	290	233	1	2,136	17,027	457	226	23,883
Total Other Steel Products	18,754	20,977	70,831	112,426	6,366	27,916	30,163	3,626	300,339	173,160	33,571	7,788	805,917
Total Steel Products	46,829	158,109	268,264	1,133,847	18,807	188,293	85,869	64,938	2,408,092	1,136,825	745,561	22,489	6,277,923
Iron Products & Ferroalloys:													
Cast iron tube, pipes, profiles & fitting	1	83	573	2,769	1	...	4	...	60	564	211	...	4,366
Malleable cast iron pipe fittings	46	3	15	387	1	5	5	2	1,335	1,268	734	244	4,045
Castings and forgings	11	2,434	3,780	4,265	1,636	11	126	74	5,872	10,801	1,064	729	30,803
Pig iron	...	782	4,711	5,443	...	...	...	37,266	28,827	4,393	7,342	...	88,764
Sponge iron	79	1,395	24,751	6,972	...	...	2	6	15,405	36,470	5	...	85,085
Ferroalloys	...	...	12,832	18,793	...	12	...	1,573	24,245	56,991	9,853	...	124,299
Total Iron Products & Ferroalloys	137	4,697	46,762	38,629	1,638	28	137	38,921	75,744	110,487	19,209	973	337,362
Grand Total	46,966	162,806	315,026	1,172,476	20,445	188,321	86,006	103,859	2,483,836	1,247,312	764,770	23,462	6,615,285
Iron and steel scrap	299	137	16,984	136,972	606	11,495	805	...	420,635	172	7,290	71	595,466

RAW STEEL PRODUCTION

Raw steel is defined as steel in the first solid state after melting suitable for further processing or sale, including ingots, steel for foundry castings and strand or pressure cast blooms, billets, slabs, or other product forms.

Raw steel production capability is defined as the tonnage capability to produce raw steel for a sustained full order book.

Table 24

Raw Steel Production by Type of Furnace, Grade and Cast

(Thousands of net tons)

	Open Hearth			Basic Oxygen Process			Electric			
Year	Carbon	Alloy	Total	Carbon	Alloy	Total	Carbon	Alloy	Stainless	Total
1989	4,229	213	4,442	53,677	4,671	58,348	28,325	4,902	1,926	35,154
1988	4,915	203	5,118	52,918	5,042	57,960	28,989	5,657	2,199	36,846
1987	2,652	14	2,666	48,536	3,960	52,496	26,788	5,173	2,028	33,989
1986	3,170	160	3,330	44,366	3,520	47,885	23,877	4,825	1,689	30,390
1985	6,005	423	6,428	47,688	4,197	51,885	23,006	5,257	1,683	29,946
1984	7,928	408	8,336	48,399	4,423	52,822	23,591	6,006	1,772	31,369
1983	5,703	248	5,951	48,115	3,934	52,050	19,965	4,900	1,750	26,615
1982	5,642	468	6,110	41,214	4,095	45,309	17,287	4,635	1,235	23,158
1981	12,195	1,257	13,452	65,701	7,530	73,231	23,566	8,836	1,743	34,145
1980	11,844	1,210	13,054	60,532	7,083	67,615	22,313	7,152	1,701	31,166

Table 24 (continued)

Raw Steel Production by Type of Furnace, Grade and Cast

(Thousands of net tons)

	Total All Grades				Per Cent of Total						Production by Type of Cast (Thousands of net tons)		
					By Grade			By Type of Furnace					
Year	Carbon	Alloy	Stainless	Total	Carbon	Alloy	Stain-less	OH	BOP	Elec-tric	Ingots	Cont. Cast	Steel for Casting
1989	86,230	9,786	1,926	97,943	88.0	10.0	2.0	4.5	59.6	35.9	34,412	63,454	77
1988	86,823	10,902	2,199	99,924	86.9	10.9	2.2	5.1	58.0	36.9	38,615	61,232	77
1987	77,976	9,147	2,028	89,151	87.5	10.2	2.3	3.0	58.9	38.1	35,802	53,284	65
1986	71,413	8,505	1,689	81,606	87.5	10.4	2.1	4.1	58.7	37.2	36,487	45,064	55
1985	76,699	9,877	1,683	88,259	86.9	11.2	1.9	7.3	58.8	33.9	49,035	39,161	63
1984	79,918	10,838	1,772	92,528	86.4	11.7	1.9	9.0	57.1	33.9	55,787	36,669	74
1983	73,783	9,082	1,750	84,615	87.2	10.7	2.1	7.0	61.5	31.5	57,385	27,174	56
1982	64,143	9,198	1,235	74,577	86.0	12.3	1.7	8.2	60.7	31.1	52,875	21,628	74
1981	101,462	17,623	1,743	120,828	84.0	14.6	1.4	11.1	60.6	28.3	94,516	26,138	173
1980	94,689	15,445	1,701	111,835	84.7	13.8	1.5	11.7	60.4	27.9	88,937	22,720	178

Table 25

Raw Steel Production by States

(Thousands of net tons)

States	1989	1988	1987	1986	1985
Indiana	20,868	21,175	19,290	16,837	19,687
Ohio	16,506	17,662	16,267	14,522	14,094
Pennsylvania	11,870	13,673	11,609	9,492	12,034
Michigan	8,172	8,194	7,699	7,475	7,297
Ala.,Tenn.,Ky.,Miss.,Ark	7,650	6,216	5,506	5,333	6,031
Illinois	7,515	7,758	7,141	6,414	6,479
Va.,W.VA.,Ga.,Fla.,N.C.,S.C., La.	7,369	7,617	7,056	6,641	6,301
R.I.,Conn.,N.J.,N.Y.,Del.,Md	6,240	6,344	5,127	5,130	5,066
Ariz.,Col.,Utah,Wash.,Ore.,Ca.,Hawaii	5,267	4,950	3,093	3,580	4,510
Minn.,Mo.,Okla.,Nebr.,Iowa	3,996	3,967	2,695	2,445	2,104
Texas	2,491	2,367	3,668	3,739	4,656
Total	97,943	99,924	89,151	81,606	88,259

Table 26

Monthly and Quarterly Raw Steel Production and Capability Utilization

(Thousands of net tons)+

Periods	1989 Net Tons	1989 Capability Utilizaton* %	1988 Net Tons	1988 Capability Utilizaton* %	1987 Net Tons	1987 Capability Utilizaton* %	1986 Net Tons	1986 Capability Utilizaton* %	1985 Net Tons	1985 Capability Utilizaton* %
January	8,729	88.2	8,380	88.1	6,248	65.5	7,666	69.4	6,984	60.9
February	8,022	89.8	7,984	89.7	5,992	69.5	7,171	71.8	6,851	66.1
March	8,997	90.9	8,763	92.2	7,375	77.3	7,947	71.9	8,269	72.1
1st Quarter	25,762	89.7	25,141	90.1	19,619	70.8	22,808	71.5	22,083	66.3
April	8,738	92.2	8,398	91.4	7,402	80.3	7,787	73.5	7,872	71.6
May	8,633	88.1	8,832	93.1	7,641	80.2	7,616	69.5	7,830	68.9
June	8,171	86.2	8,031	87.4	7,349	79.7	6,730	63.5	7,292	66.3
2nd Quarter	25,542	88.8	25,261	90.7	22,391	80.1	22,133	68.8	22,993	68.9
First 6 Months	51,295	89.2	50,370	90.3	41,933	75.3	44,966	70.0	45,110	67.7
July	7,955	80.8	8,313	88.0	7,324	77.3	6,352	59.2	7,010	62.1
August	7,790	79.2	8,181	86.6	7,494	79.1	5,668	52.8	7,130	63.2
September	7,617	80.0	8,237	90.1	7,694	83.9	5,644	54.3	6,924	63.4
3rd Quarter	23,362	80.0	24,730	88.2	22,512	80.1	17,665	55.4	21,064	62.9
9 Months	74,693	86.2	75,075	89.6	64,587	77.1	62,603	65.1	66,164	66.1
October	8,175	83.0	8,332	87.7	8,073	84.4	6,087	56.8	7,351	65.2
November	7,386	77.4	7,883	85.8	7,882	85.2	5,860	56.5	7,051	64.7
December	7,222	73.3	7,954	83.8	7,916	82.8	5,877	54.9	6,728	59.7
4th Quarter	22,782	77.9	24,169	85.8	23,871	84.1	17,824	56.1	21,130	63.2
Second 6 Months	46,144	78.9	48,899	87.0	46,383	82.1	35,489	55.8	42,193	63.0
Year	97,943	84.5	99,924	89.2	89,151	79.5	81,606	63.8	88,259	66.1

*Raw Steel production capability varies in each calendar quarter and aggregated 133.6, 127.9, 112.2 , 112.0 and 115.9 million net tons for the full years 1985, 1986, 1987, 1988, and 1989 respectively.

+Totals include adjustments not shown in monthly figures.

BASIC MATERIALS USED IN THE PRODUCTION OF IRON AND STEEL PRODUCTS

Table 27

Pig Iron Production, Consumption and Sales

(Thousands of Net Tons)

Year	Total Blast Furnace Production	Consumption		Outside Sales
		Steelmaking	Other than Steelmaking	
1989	55,873	55,299	414	298
1988	55,745	54,833	702	564
1987	48,410	47,413	315	668
1986	43,952	43,312	357	283
1985	50,446	49,547	619	435
1984	51,904	45,282	1,499	792
1983	48,706	45,783	868	658
1982	43,309	42,013	777	568
1981	73,570	70,858	3,055	1,228
1980	68,721	66,111	2,794	1,206

Table 28

Imports of Iron Ore By Countries of Origin

(Thousands of gross tons)

Country	1989p	1988r	1987	1986	1985
Brazil	4,969	4,858	3,640	3,693	2,540
Canada	8,403	9,012	7,854	8,651	8,557
Liberia	197	126	979	1,420	2,128
Venezuela	4,165	3,512	2,580	2,392	2,283
Other	1,435	2,356	1,530	593	457
Total	19,169	19,864	16,583	16,749	15,965

Source: U.S. Bureau of Mines, Dept. of Interior

Table 29

Imports for Consumption of Manganese Ore by Countries of Origin (35 Percent or More MN)*

(MN content–Net tons)

Country	1989p	1988r	1987	1986	1985
Austrialia	60,436	39,324	48,747	35,539	43,104
Brazil	94,051	27,004	29,673	38,728	59,816
Gabon	117,605	146,654	88,413	119,068	64,093
Mexico	9,459	34,490	3,712	14,771	21,761
Republic of South Africa	21,618	...	...	13,988	...
Other Countries	3,684	94	31	3,514	66
Total	306,853	247,566	170,576	225,608	188,840

*Comprises ore received during the year for immediate consumption plus material withdrawn from bonded warehouses; excludes imports for manufacture in bond and export.

Source: U.S. Bureau of Mines, Dept. of Interior

Table 30
Consumption of Coal

(Thousands of net tons)

Year	In Production of Coke	In Production of Steam*	Other Purpose	Total
1989	32,683	1,675	251	34,609
1988	33,827	1,682	261	35,770
1987	30,578	1,704	256	32,538
1986	28,836	2,206	240	31,282
1985	34,266	2,288	207	36,761

*Includes coal consumed in generating electric power

Table 31
Consumption of Fluxes in Steelmaking

(Thousands of net tons)

Use	Flourspar	Limestone	Lime	Other Fluxes	Total
1989					
In Steelmaking Furnaces:					
Open Hearth	20	158	27	175	380
Basic Oxygen process	64	896	3,292	163	4,415
Electric	44	113	1,070	250	1,477
Total	128	1,167	4,389	588	6,272
1988	137	955	4,916	793	6,801
1987	130	878	4,396	818	6,222
1986	146	809	3,925	845	5,725
1985	388	760	4,611	778	6,537

Table 32

Production, Receipts, Consumption and Shipments of Coke

(Thousands of net tons)

	1989	1988r	1987r	1986	1985
Production:					
Metallurgical	24,507	23,927	22,164	20,527	23,708
Other Coke	393	470	305	184	240
Total Production	24,900	24,397	22,469	20,711	23,948
Receipts, incl. imports	6,732	6,598	4,646	4,005	5,009
Total Production and Receipts	31,632	30,995	27,115	24,716	28,957
Consumption:					
Blast furnaces	29,175	29,442	25,476	22,332	25,624
Foundries & Other	87	101	86	256	372
Total Consumption	29,262	29,543	25,562	22,588	25,996
Shipments to outside companies	3,559	2,637	2,683	955	2,012
Total Consumption and Shipments	32,821	32,180	28,245	23,543	28,008

Table 33

Consumption of Ore and Agglomerated Products

(Thousands of net tons)

	1989	1988	1987	1986	1985
Consumed in:					
Blast Furnaces:					
Natural Ore	3,539	5,682	2,972	2,087	3,201
Pellets	67,967	67,268	54,564	48,072	56,987
Sinter, briquettes, nodules and other	15,062	17,082	15,895	14,574	17,838
Total	86,568	90,032	73,431	64,733	78,026
Steelmaking Furnaces:					
Natural Ore	157	214	136	72	99
Pellets	84	97	48	34	68
Sinter, briquettes, nodules and other	...	...	46	28	90
Total	241	311	230	134	257
Total Consumption	86,809	90,343	73,661	64,867	78,283

Table 34

Scrap Consumption by Grade

(Thousands of Net Tons)

	1989p	1988r	1987	1986	1985
Carbon Steel:					
Low phosphorous plate and punching	493	433	326	361	336
Cut structurals and plate	2,256	1,803	1,329	1,351	1,523
No. 1 heavy melting steel	15,136	16,366	14,751	14,525	16,941
No. 2 heavy melting steel	4,765	4,622	3,839	3,522	3,604
No. 1 and electric furnace bundles	5,823	6,665	6,589	6,909	7,072
No. 2 and all other bundles	992	1,057	902	881	1,105
Turnings and borings	1,138	1,202	984	1,014	1,069
Slag scrap (Fe content)	3,200	2,830	2,430	2,147	2,815
Shredded or fragmentized	4,939	5,424	4,842	4,259	4,043
No. 1 busheling	1,909	2,186	2,031	1,576	1,466
All other carbon steel scrap	7,516	8,952	9,139	8,797	8,468
Total Carbon Steel	48,167	51,540	47,162	45,342	48,442
Stainless Steel	1,141	1,271	1,098	989	1,000
Alloy steel (excl. stainless)	839	1,003	965	1,146	1,256
Iron scrap	938	991	806	1,085	1,443
Other grades or types of scrap	1,528	1,473	1,633	1,101	1,059
Total Scrap	~~52,168~~ 52,673 *	56,277 *	51,665 *	49,662	53,201

*U.S. Bureau of Mines indicates this number is understated.

Data may not add to totals due to rounding.

Source: U.S. Bureau of Mines, Dept. of the Interior

Table 35

Consumption of Scrap and Pig Iron By Types of Furnaces

(Thousands of net tons)

Year		Consumed			Scrap Stocks on Hand Year End
		Scrap	Pig Iron	Total	
1989p	Open hearth	1,020	2,105	3,125	
	Basic oxygen process	16,680	51,626	68,306	
	Electric	30,981	730	31,711	
	Cupola	113	103	216	
	Direct castings	...	209	209	
	Blast	3,362	...	3,362	
	Other (incl. air furnace)	457	42	499	
	Total	52,613 ++	54,815	107,428	3,489
1988r	Open hearth	978	3,858	4,836	
	Basic oxygen process	17,822	52,027	69,849	
	Electric	34,208	248	34,456	
	Cupola	...	1,029	1,029	
	Direct castings	...	310	310	
	Blast	3,012	...	3,012	
	Other (incl. air furnace)	257	26	283	
	Total	56,277 ++	57,498	113,775	3,514
1987	Open hearth	1,137	+	1,137	
	Basic oxygen process	15,692	46,741	62,433	
	Electric	32,044	1,606	33,650	
	Cupola	16	118	134	
	Direct castings	...	460	460	
	Blast	2,345	...	2,345	
	Other (incl. air furnace)	432	40	472	
	Total	51,666 ++	48,965	100,631	3,835
1986	Open hearth	1,556	2,325	3,881	
	Basic oxygen process	14,753	41,582	56,335	
	Electric	31,166	3	31,169	
	Cupola	34	80	114	
	Direct castings	...	297	297	
	Blast	1,935	...	1,935	
	Other (incl. air furnace)	218	37	255	
	Total	49,662	44,324	93,986	3,356
1985	Open hearth	2,411	4,737	7,148	
	Basic oxygen process	15,339	44,515	59,854	
	Electric	32,252	5	32,257	
	Cupola	20	73	93	
	Direct castings	...	468	468	
	Blast	2,481	...	2,481	
	Other (incl. air furnace)	698	37	735	
	Total	53,201	49,835	103,036	3,964

Source: U.S. Bureau of Mines. +included with electric.
++U.S. Bureau of Mines indicates this number is understated.

Table 36

Consumption of Electric Power

(Millions of kilowatt hours)

Year	Generated	Purchased	Total
1989	7,873	34,795	42,668
1988	6,869	36,566	43,435
1987	6,989	33,884	40,873
1986	7,910	30,012	37,922
1985	8,820	33,071	41,891

Table 37

Consumption of Oxygen

(Millions of cubic feet in gaseous form)

	1989	1988	1987	1986	1985
Purchased	176,453	212,144	173,687	136,881	146,148
Produced (a)	13,596	9,498	11,903	16,744	17,341
Total	190,049	221,642	185,590	153,625	163,489
Used in:					
Conditioning	4,982	5,637	5,330	5,407	7,212
Scrap preparation	819	825	865	685	733
Other burning and welding	1,651	3,785	4,477	3,182	4,292
Blast furnaces	33,849	44,334	31,953	22,077	18,031
Steelmaking:					
Open hearth	7,467	7,937	3,867	5,633	10,795
Basic Oxygen process	109,679	127,383	112,594	94,168	100,721
Electric	20,882	19,923	18,875	16,226	14,702
Total Steelmaking	138,028	155,243	135,336	116,027	126,218
Maintenance and construction	396	390	388	311	357
All Other	10,324	11,428	7,241	5,936	6,646
Total	190,049	221,642	185,590	153,625	163,489

(a) Produced on Companies owned or leased facilities

NOTE: Oxygen consumed in liquid form was converted to its gaseous equivalent in these statistics.

Table 38
Consumption of Fuels

Year	Purpose: Blast Furnace Area — Blast Furnaces	Purpose: Blast Furnace Area — Other Uses*	Purpose: Steel Melting Furnaces	Purpose: Heating and Annealing Furnaces	Purpose: Other	Total
			Fuel Oil			
			(Thousand of gallons)			
1989	171,392	672	44,814	38,651	81,563	337,092
1988	127,013	1,633	54,488	50,883	76,026	310,043
1987	140,225	3,380	44,114	34,616	50,203	272,536
1986	149,364	3,975	23,081	52,687	76,668	305,775
1985	99,674	3,583	48,390	29,125	52,625	233,397
			Tar and Pitch			
			(Thousands of gallons)			
1989	32,350	...	2,616	...	...	34,966
1988	43,417	...	4,037	...	...	47,454
1987	27,945	...	925	...	...	28,870
1986	5,248	...	...	...	...	5,248
1985	7,960	...	7,098	...	...	15,058

*Includes coke oven underfiring

Table 38 (continued)
Consumption of Fuels

Year	Purpose: Blast Furnace Area: Blast Furnaces	Purpose: Blast Furnace Area: Other Uses*	Purpose: Steel Melting Furnaces	Purpose: Heating and Annealing Furnaces	Purpose: Other	Total
Natural Gas (Millions of cubic feet based on 1,000 B.T.U. per cubic foot)						
1989	56,673	6,140	13,884	229,215	110,562	416,474
1988	52,046	6,045	20,469	255,338	105,675	439,573
1987	37,583	8,165	17,395	233,725	129,097	425,965
1986	23,650	5,991	15,182	175,295	88,793	308,911
1985	25,621	6,812	18,250	197,823	99,269	347,775
Coke Oven Gas (Millions of cubic feet based on 500 B.T.U. per cubic foot)						
1989	19,744	177,833	3,542	95,254	90,150	386,523
1988	21,695	185,952	3,924	99,760	84,319	395,650
1987	16,768	143,861	2,211	97,122	90,817	350,779
1986	16,705	131,828	1,896	86,945	74,741	312,115
1985	18,687	15[illegible],437	485	100,892	101,699	373,200
Blast Furnace Gas (Millions of cubic feet based on 95 B.T.U. per cubic foot)						
1989	854,545	408,694	...	25,736	1,085,995	2,374,970
1988	864,500	422,927	...	27,700	1,102,307	2,417,434
1987	860,067	351,107	...	38,217	1,077,324	2,326,715
1986	585,703	334,935	887	30,787	902,156	1,854,468
1985	815,434	610,696	1,298	37,827	877,346	2,342,601

*Includes 117,074 coke oven underfiring in 1985, 106,669 in 1986, 125,681 in 1987, 139,502 in 1988, and 137,111 in 1989.

*Includes coke oven underfiring

CANADIAN STATISTICS

Table 39

Income, Dividends, Return on Sales and Stockholders' Equity)

(Millions of Canadian dollars)

(Reported by companies comprising 76% of Canadian Raw Steel Production)

	1989	1988r	1987	1986	1985
REVENUES:					
Sales (Net Billing Value of Products Shipped and other services)	$7,117.9	$6,124.7	$6,235.9	$5,642.4	$5,909.4
Interest, Dividends & Other Income	64.8	52.2	53.8	75.0	70.1
Total Revenue	$7,187.7	$6,176.9	$6,289.8	$5,717.4	$5,979.5
Costs Applied to Billings and Other Services:					
Employment Costs	2,145.0	1,823.6	1,978.9	1,335.0	1,468.8
Materials, Supplies, Freight and Other Services	3,887.5	3,310.9	3,416.1	3,691.6	3,691.6
Depreciation, Depletion & Amortization	385.2	3,252.2	294.5	275.5	264.9
Interest & Other Financial Costs	231.0	164.8	175.0	176.9	165.0
Taxes Other than Income	...	...	26.4	27.1	25.2
Loss or (Gain) on Sales of Assets	...	...	4.6	...	...
Loss or (Gain) Attributable to Shutdown or Restructuring of Facilities	41.1	...	...	...	...
Unusual Items	...	...	...	...	...
Taxes on Income	161.9	171.6	133.3	61.9	111.6
Total Costs	$6,851.6	$5,826.0	$6,028.8	$5,588.1	$5,727.1
Extraordinary and Other Items Net of Taxes	...	(3.3)	5.0	(77.6)	(2.2)
NET INCOME	$ 331.1	$ 347.6	$ 266.0	$ 51.7	$ 250.2
Percent Return on Sales	4.7	5.7	4.3	0.9	4.2
Percent Return on Stockholders' Equity +	10.4	9.8	7.3	1.4	6.8
Cash Dividends Declared	$ 165.2	$ 154.5	$ 169.1	$ 184.0	$ 182.0
Employees	40,500	40,700	40,800	39,900	43,800

+ Based on stockholders' equity as of Dec. 31 of the prior year.

Table 40

Balance Sheet

(Millions of Canadian Dollars)

(Reported by companies comprising 76% of Canadian Raw Steel Production)

ASSETS	1989	1988r	1987	1986	1985
Current Assets:					
Cash & Marketable Securities	$ 192.6	$ 155.4	$ 311.6	$516.4	$ 755.1
Receivables, Less Allowances	857.7	936.9	888.6	787.1	832.6
Inventories	2,111.7	1,831.2	1,550.2	1,618.6	1,807.0
Other Current Assets	6.5	6.1	26.1	14.1	18.0
Total Current Assets	$3,168.5	$2,929.6	$2,776.5	$2,936.1	$3,412.7
Long-Term Receivables & Other Investments	198.5	188.7	337.1	190.6	292.5
Fixed Assets:					
Property, Plant & Equipment	8,476.8	8,128.0	8,472.2	7,995.1	7,264.4
Less-Depreciation, Depletion & Amortization	3,394.5	3,134.5	3,829.4	3,631.4	3,301.7
Net Fixed Assets	5,082.3	4,993.5	4,642.8	4,363.7	3,962.7
Other Assets	161.5	68.4	72.7	81.9	105.4
Total Assets	$8,610.8	$8,180.2	$7,829.1	$7,572.3	$7,773.3
LIABILITIES & STOCKHOLDERS' EQUITY					
Current Liabilities:					
Accounts Payable	$1,120.1	$ 943.5	$ 888.4	$ 806.2	$ 862.4
Accrued taxes incl. Federal Income Taxes	108.5	93.0	60.5	83.3	69.9
Long-Term Debt Maturing Within One Year	248.3	71.6	38.8	66.7	46.1
All Other Current Liabilities	31.1	28.9	35.4	37.5	92.3
Total Current Liabilities	$1,508.0	$1,137.1	$1,023.2	$ 993.7	$1,070.8
Long-Term Debt Less Amount Maturing Within One Year	1,949.9	2,033.2	1,772.8	1,586.6	1,666.7
Other long-term liabilities and reserves	1,383.3	1,439.6	1,138.0	931.8	886.4
Minority interest	34.0	36.3	...	...	...
Redeemable preferred stock	340.7	341.2	341.5	421.6	421.8
Stockholders' Equity:					
Preferred stock	189.1	190.7	514.2	713.6	718.2
Common stock	995.7	956.5	827.2	795.4	756.0
Income reinvested in business	2,210.1	2,045.6	2,212.3	2,129.6	2,253.5
Total Stockholders' Equity	$3,394.9	$3,192.8	$3,553.7	$3,638.6	$3,727.6
Total Liabilities and Stockholders' Equity	$8,610.8	$8,180.2	$7,829.1	$7,829.1	$7,773.3

Table 41

Production of Pig Iron

(Net Tons)

Year	Pig Iron
1989	11,176,114
1988	10,469,936
1987	10,713,572
1986	10,194,655
1985	10,654,200
1984	10,629,765
1983	9,442,986
1982	8,818,564
1981	10,740,258
1980	12,007,067

Source: Statistics Canada

Table 42

Raw Steel Production

(Net Tons)

Year	Open Hearth	Basic Oxygen Process	Electric	Total	Steel for Castings*		Continuous Cast Inc. in Total
1989	**	11,693,580	5,207,370	16,900,950	138,557		12,963,568
1988r	**	10,942,723	5,291,785	16,234,508	151,770		11,353,591
1987	**	11,262,068	4,855,940	16,118,008	126,639		7,953,948
1986	**	10,955,796	4,462,705	15,418,501	103,432		7,116,551
1985	**	11,633,276	4,385,334	16,018,610	116,293		7,037,419
1984	**	11,832,642	4,225,487	16,058,129	144,804		6,225,060
1983	1,014,966	9,364,629	3,650,893	14,030,488	114,752		5,292,981
1982	1,814,266	7,989,644	3,161,669	12,965,579	120,257		4,293,022
1981	2,203,771	9,567,252	4,363,641	16,134,664	191,747		5,258,275
1980	3,583,430	9,669,217	4,275,473	17,528,120	239,495	***	4,489,581

*Includes only that portion of the steel for castings which was produced in foundries operated by companies producing steel ingots.

**Included in Basic Oxygen Process

***Included in total

Source: Statistics Canada

Table 43

Net Shipments of Rolled Steel Products

(Net Tons)

Products	1989	1988	1987	1986	1985
Ingots and semifinished shapes	D	433,314	388,123	297,654	406,540
Rails and heavy structural shapes	587,685	625,454	678,843	605,989	586,312
Wire rods	1,301,338	1,279,211	1,281,499	1,255,526	1,154,729
Structural shapes intermediate	341,987	387,401	405,817	362,852	352,425
Bar sized shapes	155,593	230,535	236,446	208,597	195,410
Concrete reinforcing bars	822,221	718,125	723,556	603,881	622,082
Other hot rolled bars	1,353,427	1,376,153	1,316,790	1,203,713	1,253,544
Tie plates and track material	25,237	28,325	24,243	42,264	54,163
Plate (incl. plates for pipe & tube)	2,358,652	2,529,558	1,992,122	1,546,100	1,627,336
Hot rolled sheets & strip	3,569,827	3,125,045	3,246,182	3,130,728	3,020,767
Cold finished bars	138,828	171,310	157,802	144,003	130,642
Cold reduced sheets & strip, cold rolled other	1,586,169	1,663,477	1,578,544	1,560,742	1,559,933
Tin plate & T.F.S.	D	504,894	539,035	521,592	554,255
Galvanized sheets	1,611,294	1,545,374	1,483,977	1,371,207	1,336,334
Total net shipments	14,689,038	14,618,176	14,052,979	12,854,848	12,854,472

Table 43 (continued)

Net Shipments of Rolled Steel Products

(Net Tons)

Products	1984	1983	1982	1981	1980
Ingots and semifinished shapes	594,400	824,174	578,736	1,098,708	897,005
Rails and heavy structural shapes	573,348	505,527	454,257	925,608	862,691
Wire rods	1,199,146	1,129,709	989,851	1,088,166	1,363,294
Structural shapes intermediate	324,346	287,179	238,106	391,404	458,798
Bar sized shapes	181,368	140,442	127,372	182,561	177,693
Concrete reinforcing bars	523,279	580,257	598,187	750,665	843,294
Other hot rolled bars	1,208,846	937,983	830,121	1,126,657	1,105,299
Tie plates and track material	75,271	55,080	63,033	74,934	87,256
Plate (incl. plates for pipe & tube)	1,635,150	1,118,416	1,237,498	1,987,162	1,954,672
Hot rolled sheets & strip	3,047,059	2,328,771	2,203,371	2,506,978	2,557,134
Cold finished bars	135,967	99,227	75,258	104,763	108,224
Cold reduced sheets & strip, cold rolled other*	1,521,493	1,396,012	1,339,205	1,941,128	2,037,874
Tin plate & T.F.S.	539,990	570,873	545,214	**	**
Galvanized sheets	1,182,101	1,046,692	1,025,365	1,047,999	1,099,256
Total net shipments	12,741,764	11,020,342	10,305,574	13,226,733	13,552,490

Source: Statistics Canada

*Prior to 1982, included tin plate and T.F.S.

**Included in cold reduced sheets & strip.

Table 44

Imports of Iron and Steel Products

(Net Tons)

Products	1989	1988	1987	1986	1985
Steel Mill Products:					
Ingots, blooms, billets, etc.	720,625	1,479,448	799,904	280,685	159,473
Wire rods	266,840	223,730	275,971	315,050	246,062
Structural shapes (3" & over)	223,193	322,149	208,865	164,695	173,072
Sheet piling	14,357	9,981	3,970	2,181	9,458
Plates	298,809	379,977	224,489	184,976	255,052
Rail and track accessories	80,094	90,510	75,230	92,499	79,721
Concrete reinforcing bars	64,250	61,396	47,112	9,545	13,264
Bar shapes under 3"	23,881	43,486	58,853	52,109	70,652
Bars-hot rolled	156,508	240,277	120,479	98,273	114,607
-cold finished	36,721	28,530	19,886	20,490	21,699
Pipe and Tubing	316,652	507,144	310,550	275,231	500,712
Wire drawn	+	+	67,995	66,758	66,707
Barbed wire	775	859	1,227	1,564	3,820
Wire nails	18,342	28,199	19,282	17,821	11,784
Tin plate	6,024	5,244	3,308	4,972	588
Terne plate	9,727	13,232	11,094	17,296	18,807
Sheets-hot rolled	133,919	165,966	203,751	194,229	426,326
-cold rolled	153,222	195,354	248,130	281,579	232,142
Sheet & strip(coated.incl. galvanized)	310,226	342,627	311,514	266,757	180,831
All other Sheet and strip	65,543	74,011	33,546	30,557	40,807
Total Steel Mill Products	2,899,708	4,212,120	3,045,156	2,377,267	2,625,584
Other Steel Products:					
Steel castings and forgings	N.A.	N.A.	18,232	17,090	17,675
Bars and rods, fabricated	N.A.	N.A.	5,748	6,336	5,616
Plates, flanged and dished	N.A.	N.A.	1,755	1,694	1,906
Plate, sheets and strip for saws	N.A.	N.A.	2,359	2,276	3,015
Plates, fabricated	N.A.	N.A.	3,974	4,985	5,475
Sheet and strip, fabricated	N.A.	N.A.	16,403	18,615	12,498
Structural shapes, fabricated	N.A.	N.A.	8,320	9,156	3,183
Wire rope & strand++	68,291	139,174	27,227	29,491	28,465
Grinding balls	51,314	54,147	50,218	27,564	19,877
Total Other Steel Products	119,605	193,321	134,236	117,207	97,710
Total Steel Products	3,019,313	4,405,441	3,179,392	2,494,474	2,723,294
Iron Products and Ferroalloys:					
Pig iron	16,744	31,058	10,796	13,322	11,111
Sponge iron	1,200	1,969	1,736	1,783	2,662
Castings and forgings	N.A.	N.A.	35,214	29,663	22,192
Pipes and tubes, cast iron	N.A.	N.A.	11,963	2,674	1,224
Ferroalloys	157,558	154,599	122,788	96,094	87,403
Total Iron Products and Ferroalloys	175,502	187,626	182,497	143,536	124,592
Grand Total	3,194,815	4,593,067	3,361,889	2,638,010	2,847,886

Source: Statistics Canada +Included in other steel products wire rope. ++Includes wire drawn.

Table 45

Exports of Iron and Steel Products

(Net Tons)

Products	1989	1988r	1987	1986	1985
Steel Mill Products:					
Ingots, blooms, billets, etc.	30,551	198,767	114,742	257,307	84,560
Wire rods	457,564	374,289	392,580	397,695	355,215
Structural shapes (3" & over)	156,304	282,450	315,446	371,557	320,360
Plates	402,421	448,766	435,840	213,232	186,415
Rail and track accessories	97,917	174,017	190,204	75,001	50,139
Bars-hot rolled	442,771	551,258	388,296	329,567	326,424
-cold finished	47,864	84,401	49,062	46,181	32,244
Pipe and Tubing	509,732	520,159	532,858	397,387	477,510
Wire plain and coated	224,178	290,613	214,753	212,956	180,928
Wire nails	N.A.	83,523	83,969	106,867	86,118
Sheets and strip	1,500,855	873,677	1,214,529	1,136,379	1,157,096
Sheet and strip galvanized	224,548	182,327	277,826	270,591	277,731
Total Steel Mill Products	4,094,705	4,064,247	4,210,105	3,814,720	3,534,740
Other Steel Products:					
Bars and rods, fabricated	N.A.	N.A.	15,131	25,025	20,403
Grinding balls	N.A.	972	801	38	31
Castings and forgings	N.A.	7,810	38,504	41,213	45,624
Wire rope & strand	22,662	18,979	7,276	5,922	9,306
Total Other Steel Products	22,662	27,761	61,712	72,198	75,364
Total Steel Products	4,117,367	4,092,008	4,271,817	3,886,918	3,610,104
Iron Products and Ferroalloys:					
Pig iron	461,090	391,300	492,680	572,720	632,850
Sponge iron	N.A.	N.A.	57,270	40,786	40,091
Iron castings	N.A.	N.A.	114,297	91,288	88,763
Pipes and tubes, cast iron	4,330	5,573	3,763	1,330	2,153
Ferroalloys	62,136	70,245	67,547	112,238	95,063
Total Iron Products and Ferroalloys	527,556	467,118	735,557	818,362	858,920
Grand Total	4,644,923	4,559,126	5,007,374	4,705,280	4,469,024

Source: Statistics Canada

Table 46

Consumption of Coal

(Thousands of net tons)

Year	Total
1989	6,478
1988	6,788
1987	6,854
1986	6,674
1985	6,901

Table 47

Consumption of Coke

(Thousands of net tons)

Year	In Blast Furnaces	Total
1989	4,640	4,648
1988	4,487	4,490
1987	4,809	4,809
1986	4,578	4,585
1985	5,009	5,011

Table 48

Consumption of Fuel Oil

(Thousands of gallons)

Year	In Melting Furnaces	In Heating and Annealing Furnaces	Other Purposes	Total
1989	86,559	2,977	10,785	100,321
1988	54,908	6,943	16,176	78,027
1987	45,152	11,563	13,949	70,664
1986	36,763	11,096	13,276	61,135
1985	34,044	15,037	10,901	59,982

Table 49

Consumption of Fluxes in Steelmaking Furnaces

(Thousands of net tons)

	Flourspar	Limestone	Lime	Other Fluxes	Total
1989	17	65	744	266	1,092
1988	17	64	700	230	1,011
1987	20	57	700	217	994
1986	17	57	805	197	1,076
1985	21	73	763	229	1,086

Table 50
Consumption of Oxygen
(Millions of cubic feet)

	1989	1988	1987	1986	1985
Consumption by Uses:					
Conditioning	1,122	978	1,323	1,599	1,613
Scrap Preparation	223	256	301	292	331
Other burning and welding	191	203	208	154	176
Blast furnaces	3,617	1,574	1,790	1,695	1,243
Steelmaking furnaces	24,388	22,223	22,328	21,791	22,752
Maintenance & construction	163	114	70	54	31
All other	917	1,350	1,787	1,074	916
Total	30,621	26,698	27,807	26,659	27,062

Table 51
Consumption of Pig Iron
(Thousands of net tons)

Year	Steelmaking	Other Than Steelmaking	Total
1989	10,036	112	10,148
1988	9,525	91	9,616
1987	9,843	48	9,891
1986	9,374	41	9,415
1985	9,882	64	9,946

WORLD STATISTICS

The following tables covering production of foreign countries were compiled from reports issued by Statistics Canada, and the International Iron and Steel Institute.

Table 52

World Production of Pig Iron by Countries

(Thousands of Net Tons)

Countries	1989p		1988r		1987		1986		1985	
	Tons	%	Tons	%	Tons	%	Tons	%	Tons	%
North America										
United States	55,873	9.4	55,745	9.5	48,410	8.7	43,952	8.0	50,446	9.2
Canada	11,176	1.9	10,470	1.8	10,714	1.9	10,195	1.9	10,654	1.9
Total	67,049	11.3	66,215	11.3	59,124	10.7	54,147	9.9	61,100	11.1
Latin America										
Argentina	2,320	...	1,830	...	1,831	...	1,791	...	1,443	...
Brazil	26,875	...	25,831	...	23,518	...	22,435	...	20,901	...
Chile	748	...	858	...	680	...	653	...	634	...
Columbia	327	...	349	...	359	...	349	...	258	...
Mexico	3,576	...	4,011	...	4,076	...	4,120	...	3,891	...
Paraguay	67	...	88	...	...	...	...	...	...	...
Peru	250	...	223	...	197	...	238	...	180	...
Venezuela	539	...	554	...	519	...	541	...	485	...
Total	34,702	5.8	33,744	5.7	31,281	5.6	30,128	5.5	27,792	5.1
Europe										
Western Europe										
EEC										
Belgium	9,830	...	10,124	...	9,082	...	8,869	...	9,642	...
Luxembourg	2,959	...	2,777	...	2,541	...	2,921	...	3,036	...
France	16,614	...	16,299	...	14,825	...	5,412	...	16,613	...
Italy	12,994	...	12,540	...	12,495	...	13,115	...	13,297	...
Netherlands	5,691	...	5,505	...	5,043	...	4,101	...	5,312	...
Portugal*	416	...	601	...	584	...	579	...	572	...
Spain*	6,101	...	5,171	...	5,308	...	5,300	...	6,015	...
West Germany	36,130	...	35,773	...	30,992	...	31,518	...	34,329	...
United Kingdom	13,931	...	14,392	...	13,246	...	10,676	...	11,444	...
Total EEC	104,666	17.6	103,182	17.6	94,115	17.0	93,491	17.1	93,673	17.0
Other Western Europe										
Austria	4,214	...	4,040	...	3,804	...	3,692	...	4,083	...
Finland	2,518	...	2,395	...	2,274	...	2,180	...	2,095	...
Norway	298	...	405	...	401	...	622	...	672	...
Sweden	2,908	...	2,747	...	2,551	...	2,684	...	2,672	...
Switzerland	77	...	77	...	77	...	87	...	73	...
Turkey	3,867	...	4,918	...	4,484	...	4,115	...	3,520	...
Yugoslavia	3,196	...	3,214	...	3,161	...	3,381	...	3,431	...
Total Other Western Europe	17,078	2.9	17,796	3.0	16,753	3.0	16,761	3.1	23,133	4.2
Total Western Europe	121,744	20.5	120,978	20.6	110,868	20.0	110,252	20.2	116,805	21.2

* In 1985 included in Other Western Europe total.

Table 52 (continued)

World Production of Pig Iron by Countries

(Thousands of Net Tons)

Countries	1989p		1988r		1987		1986		1985	
	Tons	%	Tons	%	Tons	%	Tons	%	Tons	%
Eastern Europe										
Bulgaria	1,690	...	1,636	...	1,825	...	1,769	...	1,887	...
Czechoslovakia	10,839	...	10,699	...	10,789	...	10,552	...	10,540	...
East Germany	2,980	...	3,071	...	3,024	...	3,005	...	2,827	...
Hungary	3,298	...	2,315	...	2,325	...	2,272	...	2,315	...
Poland	10,108	...	11,314	...	11,048	...	11,129	...	10,290	...
Rumania	10,472	...	10,472	...	10,472	...	10,283	...	10,154	...
U.S.S.R.	123,837	...	125,662	...	125,552	...	125,486	...	121,228	...
Total Eastern Europe	163,224	27.5	165,169	28.1	165,035	29.7	164,496	30.1	159,242	29.0
Total Europe	284,968	48.0	286,147	48.7	275,903	49.7	274,748	50.3	276,047	50.2
Africa										
Zimbabwe	595	...	601	...	617	...	710	...	743	...
South Africa,Republic of	7,179	...	6,802	...	6,963	...	6,365	...	6,625	...
Algeria	1,433	...	1,433	...	1,433	...	1,543	...	1,543	...
Tunisia	154	...	141	...	171	...	157	...	165	...
Other	22	...	22	...	22	...	22	...	22	...
Total	9,383	1.6	8,999	1.5	9,206	1.7	8,797	1.6	9,098	1.7
Middle East										
Iran	276	...	276	...	276	...	276	...	276	...
United Arab Republic (Egypt)	1,213	...	1,226	...	1,047	...	1,047	...	1,047	...
Total	1,489	0.3	1,502	0.3	1,323	0.2	1,323	0.2	1,323	0.2
Far East										
India	13,393	...	12,912	...	12,040	...	11,590	...	10,847	...
Japan	88,400	...	87,407	...	80,929	...	82,288	...	88,811	...
Pakistan	1,003	...	998	...	998	...	987	...	885	...
South Korea	16,365	...	13,865	...	12,188	...	9,924	...	9,737	...
Taiwan	6,371	...	6,048	...	4,032	...	4,123	...	3,780	...
Thailand	11	...	11	...	11	...	11	...	11	...
China (Mainland)	57,320	...	56,217	...	55,335	...	55,049	...	47,997	...
North Korea	6,504	...	6,504	...	6,504	...	6,393	...	6,338	...
Total	109,367	31.9	183,962	31.3	172,037	31.0	170,365	31.3	168,406	30.6
Oceania										
Australia	6,706	...	6,308	...	6,150	...	6,452	...	6,172	...
New Zealand	476	...	461	...	...	...	...	...	...	...
Total	7,182	1.2	6,769	1.2	6,150	1.1	6,452	1.2	6,172	1.1
Total World	594,140	100.0	587,338	100.0	555,024	100.0	545,960	100.0	549,938	100.0

NOTE: Detail does not necessarily add to totals

Source: United States–American Iron and Steel Institute; Canada–Statistics Canada;Other Countries–International Iron and Steel Institute.

Table 53

World Production of Raw Steel by Countries

(Thousands of Net Tons)

Countries	1989p		1988r		1987		1986		1985	
	Tons	%	Tons	%	Tons	%	Tons	%	Tons	%
North America										
United States	97,943	11.4	99,924	11.6	89,151	11.0	81,606	10.3	88,259	11.1
Canada	16,901	2.0	16,235	1.9	16,118	2.0	15,419	2.0	16,019	2.0
Total	114,844	13.4	116,159	13.5	105,269	13.0	97,025	12.3	104,278	13.1
Latin America										
Argentina	4,249	...	3,993	...	3,979	...	3,566	...	3,247	...
Brazil	27,576	...	27,179	...	24,502	...	23,405	...	22,546	...
Chile	896	...	991	...	793	...	778	...	751	...
Columbia	778	...	785	...	762	...	697	...	579	...
Cuba	551	...	496	...	468	...	459	...	441	...
Mexico	8,588	...	8,585	...	8,346	...	7,901	...	8,004	...
Peru	438	...	530	...	502	...	537.0	...	456	...
Venezuela	3,737	...	4,023	...	4,103	...	3,750	...	3,368	...
Others	623	...	654	...	632	...	558	...	353	...
Total	47,435	5.5	47,236	5.5	44,087	5.4	41,651	5.3	39,745	5.0
Europe										
Western Europe										
EEC										
Belgium	12,068	...	12,364	...	10,827	...	10,707	...	11,776	...
Luxembourg	4,102	...	4,036	...	3,640	...	4,084	...	4,348	...
Denmark	688	...	716	...	667		697		582	
France	21,260	...	21,078	...	19,500	...	19,684	...	20,740	...
West Germany	45,275	...	45,220	...	39,956	...	40,933	...	44,640	...
Ireland	357	...	299	...	243	...	229	...	224	...
Italy	27,756	...	26,191	...	25,153	...	25,223	...	26,314	...
Netherlands	6,262	...	6,082	...	5,602	...	5,823	...	6,081	...
United Kingdom	20,657	...	20,889	...	19,208	...	16,231	...	17,330	...
Greece	1,056	...	1,057	...	1,000	...	1,113	...	1,086	...
Portugal*	804	...	881	...	795		783		740	
Spain*	14,106	...	13,102	...	13,021		13,098		15,689	
Total EEC	154,390	17.9	151,915	17.6	139,612	17.2	138,605	17.6	133,121	16.8
Other Western Europe										
Austria	5,201	...	5,026	...	4,741	...	4,731	...	5,137	...
Finland	3,220	...	3,084	...	2,942	...	2,851	...	2,776	...
Norway	702	...	1,003	...	937	...	933	...	1,041	...
Sweden	5,172	...	5,268	...	5,065	...	5,198	...	5,305	...
Switzerland	1,010	...	1,089	...	959	...	1,185	...	1,088	...
Turkey	8,655	...	8,799	...	7,769	...	6,534	...	5,456	...
Yugoslavia	4,958	...	4,946	...	4,814	...	4,982	...	4,938	...
Total Other Western Europe	28,918	3.4	29,215	3.4	27,227	3.4	26,414	3.3	42,170	5.3
Total Western Europe	183,308	21.3	181,130	21.0	166,839	20.6	165,019	20.9	175,291	22.1

* In 1985 included in Other Western Europe total.

Table 53 (continued)

World Production of Raw Steel by Countries

(Thousands of Net Tons)

Countries	1989p		1988r		1987		1986		1985	
	Tons	%	Tons	%	Tons	%	Tons	%	Tons	%
Eastern Europe										
Bulgaria	3,252	...	3,175	...	3,355	...	3,194	...	3,225	...
Czechoslovakia	17,047	...	16,953	...	16,993	...	16,658	...	16,574	...
East Germany	8,630	...	8,965	...	9,086	...	8,782	...	8,655	...
Hungary	3,654	...	3,948	...	3,993	...	4,095	...	4,020	...
Poland	16,353	...	18,599	...	18,898	...	18,898	...	17,776	...
Rumania	14,881	...	15,983	...	16,493	...	15,736	...	15,206	...
U.S.S.R.	176,453	...	179,716	...	178,501	...	177,123	...	170,474	...
Total Eastern Europe	240,270	27.9	247,339	28.8	247,319	31.0	244,486	31.0	235,930	29.8
Total Europe	423,578	49.1	428,469	49.9	414,158	51.9	409,505	51.9	411,221	51.9
Africa										
Zimbabwe	653	...	664	...	658	...	743	...	806	...
South Africa,Republic of	10,546	...	9,741	...	9,620	...	9,805	...	9,377	...
Others	2,133	...	2,173	...	2,036	...	2,046	...	1,211	...
Total	13,332	1.5	12,578	1.4	12,314	1.6	12,594	1.6	11,394	1.4
Middle East										
United Arab Republic (Egypt)	2,205	...	2,232	...	1,764	...	1,102	...	1,047	...
Saudi Arabia	1,995	...	1,779	...	1,505	...	1,213	...	1,219	...
Iran	1,102	...	1,078	...	1,378	...	1,213	...	1,323	...
Others	976	...	910	...	891	...	901	...	918	...
Total	6,278	0.7	5,999	0.7	5,538	0.7	4,429	0.6	4,507	0.5
Far East										
India	15,905	...	15,773	...	14,438	...	13,445	...	12,724	...
Japan	118,948	...	116,492	...	108,591	...	108,329	...	116,049	...
South Korea	24,111	...	21,074	...	18,499	...	16,044	...	14,924	...
Taiwan	9,543	...	9,136	...	6,379	...	6,112	...	5,609	...
China (Mainland)	67,714	...	66,510	...	61,751	...	57,209	...	51,504	...
North Korea	7,551	...	7,529	...	7,418	...	10,130	...	9,259	...
Others	5,290	...	5,686	...	5,462	...	4,802		4,196	
Total	249,062	28.9	241,200	28.1	222,538	27.4	216,071	27.4	214,265	27.1
Oceania										
Australia	7,421	...	7,040	...	6,724	...	7,367	...	7,286	...
New Zealand	670	...	507	...	451	...	316	...	250	...
Total	8,091	0.9	7,547	0.9	7,175	0.9	7,673	1.0	7,535	1.0
Total World	862,620	100.0	859,188	100.0	811,079	100.0	786,948	100.0	792,945	100.0

NOTE: United States data excludes steel produced by foundries which report their output to the Bureau of Census, but not to American Iron and Steel Institute as follows: 1989–1,137p;1988–1,013r;1987–930,1986–839,1985–940,(in thousands of net tons).

Source: United States–American Iron and Steel Institute; Canada–Statistics Canada;Other Countries–International Iron and Steel Institute.

AMERICAN IRON AND STEEL INSTITUTE